



# Cancer Research

VOLUME 42 • NO. 12 CNREA 8 • PP 5289-5384

**December 1982**

PART 2 OF TWO PARTS

## **Index to Volume 42**

---

## **1982**

## Notice to Members of the American Association for Cancer Research

Officers for 1982-1983

**President:** Gerald C. Mueller, McArdle Laboratory for Cancer Research, 450 North Randall Avenue, Madison, Wisconsin 53706  
**Vice President:** Gertrude B. Elion, Burroughs Wellcome Co., 3030 Cornwallis Road, Research Triangle Park, North Carolina 27709  
**Secretary-Treasurer:** Robert E. Handschumacher, Yale University School of Medicine, 333 Cedar Street, New Haven, Connecticut 06510  
**Executive Director:** Margaret Foti, Temple University School of Medicine, Student-Faculty Center, LB-41, Philadelphia, Pa. 19140

### Annual Dues

The annual dues of active members of the American Association for Cancer Research are \$55.00 and they include a subscription to the journal *Cancer Research*. The regular subscription price of *Cancer Research* for members of the Association is \$40.00 per annual volume. Payment of dues and changes of address of members of the Association should be sent promptly to the office of the American Association for Cancer Research, c/o Margaret Foti, Executive Director, American Association for Cancer Research, Temple University School of Medicine, Student-Faculty Center, LB-41, Philadelphia, Pa. 19140.

### Sponsors

*Cancer Research* is sponsored by the American Association for Cancer Research, Inc.; the National Cancer Institute, United States Public Health Service; the American Cancer Society, Inc.; the Elsa U. Pardee Foundation; Society for the Promotion of Cancer Research, Japan; Hoffmann-LaRoche Inc.; and American Cyanamid Company; publication costs are met in part by grants from these agencies.

### Subscription Information

*Cancer Research* is published monthly, one volume per year, for Cancer Research, Inc. by Waverly Press, Inc., 428 E. Preston Street, Baltimore, Maryland 21202. Subscriptions include the *Proceedings of the American Association for Cancer Research* and the *American Society of Clinical Oncology*, issued in March of each year. Except for members of the American Association for Cancer Research, all subscriptions are payable in advance to the publisher of the journal, Waverly Press, Inc., to which all business communications, remittances (in United States currency or its equivalent), and subscription orders should be sent. Nonmembers of the American Association for Cancer Research within the United States and Canada may subscribe to the journal *Cancer Research* at the rate of \$80.00 (individual nonmembers) or \$140.00 (institutional nonmembers) per annual volume, including postage. Institutional and individual nonmembers outside of the United States and Canada should add \$24.00 to their respective rates to offset postage costs. The publisher should be notified of changes of address 60 days in advance; subscribers should give both their old and new addresses. Members of the American Association for Cancer Research should also inform the Executive Director, Margaret Foti, of their change of address. Copies of the journal which are undeliverable because of address changes will be destroyed.

### Back Issues and Single Copy Sales of the Journal

Copies of back stock of the journal *Cancer Research* for the two years preceding the current year may be ordered from Waverly Press, Inc. As long as supplies permit, single copies of *Cancer Research* will be sold by this company at \$20.00 per copy for regular issues and \$20.00 per copy for Supplement issues which contain material from conferences on topics related to cancer. The annual *Proceedings of the American Association for Cancer Research* is available at \$20.00 per copy. When available, earlier issues may be obtained from Walter J. Johnson, Inc., 355 Chestnut Street, Norwood, New Jersey 07648.

### Advertisements in Cancer Research

Advertisement insertion orders and copy must be received 60 days prior to the month of issue in which the advertisement is to be published. The journal is mailed on or about the 20th of the month preceding the month of issue. Inquiries about advertising should be directed to: Donald H. Nichols, Vice President, Journal Sales, Waverly Press, Inc., 428 E. Preston Street, Baltimore, Maryland 21202. Telephone: 301/528-4280.

### Historical Cover Themes

Readers are invited to submit themes (events, persons, institutions) for consideration for the illustrated covers of *Cancer Research*. Correspondence regarding suggested cover themes, or other matters regarding covers, should be addressed to the Cover Editor, *Cancer Research* Editorial Office.

### Submission of Manuscripts

Papers submitted for publication in *Cancer Research* and all other communications for the attention of the Editor should be sent to: Dr. Peter N. Magee, Editor, *Cancer Research*, Fels Research Institute, Temple University School of Medicine, Philadelphia, Pennsylvania 19140. Telephone: 215/221-4720. *Cancer Research* publishes original studies in all the subfields of cancer research, including: biochemistry and physiology; cell biology; chemical and physical carcinogenesis and mutagenesis; clinical investigations; endocrinology; epidemiology and biostatistics; immunology; molecular biology and genetics; preclinical pharmacology and experimental therapeutics; radiobiology; and virology. Clinical investigations and epidemiological studies are published in a separate section from papers in the basic sciences. Authors should consult the detailed "Instructions for Authors" printed in the January issue of the journal, copies of which are available upon request.

#### Manuscript Processing Fee

Journal policy requires that a single manuscript processing fee of \$60.00 be assessed for all papers to defray the expenses incurred in the editorial review process. An invoice is sent to the author upon receipt of the manuscript. Review to determine acceptability will not be delayed pending payment of this fee.

#### Copyright and Copyright Clearance Center

The Copyright Revision Act (PL 94-553), which became effective January 1, 1978, states that the copyright of a work is vested in the author from the moment of creation. Therefore, all authors who wish to publish in *Cancer Research* must formally transfer copyright to the proprietor of the journal, Cancer Research, Inc. It is understood by this transfer that the authors relinquish all exclusive rights of copyright ownership, including the rights of reproduction, derivation, distribution, sale, and display.

Authors who prepared their articles as part of their official duties as employees of the U. S. Federal Government are not required to transfer copyright to Cancer Research, Inc., since these articles are considered to be in the public domain. However, it is necessary for these authors to sign the appropriate section of the transfer form. In the case of articles supported by federal grants or contracts, copyright transfer to Cancer Research, Inc., is required. The federal government may retain a nonexclusive license to publish or republish such material.

The duly authorized agent of a commercial firm or commissioning organization must sign the transfer form if the author prepared the article as part of his or her official duties as an employee.

Appropriate forms for transfer of copyright will be sent routinely with acknowledgment of receipt of manuscripts for review. They may also be requested from the *Cancer Research* Editorial Office. The journal will not publish a paper unless the form is properly completed and signed.

The appearance of the code 0008-5472/82/0042-0000\$02.00 at the top of the first page of an article in *Cancer Research* indicates that the copyright owner has consented that copies of the article may be made for personal or internal use, provided that the copier pay the stated per-copy fee of \$2.00 through the Copyright Clearance Center, Inc. This Center is a nonprofit organization through which individuals and institutions may reimburse a copyright owner for photocopying journal articles beyond what is defined as "fair use" in Sections 107 and 108 of the Copyright Revision Act of 1978.

Those who wish to photocopy *Cancer Research* articles may report the number of copies they have made together with the fee code to: Copyright Clearance Center, Inc., 21 Congress St., Salem, Mass. 01970. Remittances may be sent to the Center at the time of reporting or the Center will bill the user on a monthly basis. Deposit accounts and prepayment plans may also be arranged.

Articles from any issue of *Cancer Research* dating from 1973 may be photocopied under the same conditions and at the same fee. If there is no fee code, as in issues prior to June 1978, the user should report the title of the journal, the month of the issue, and the initial page number of the article, together with a statement of the number of copies made. If an article published after June 1978 does not carry a fee code, it is understood to be in the public domain and may be copied without restriction or payment of a fee.

*Cancer Research* is abstracted or indexed in *Biological Abstracts*, *Chemical Abstracts*, *Index Medicus*, *Science Citation Index*, and by the *International Cancer Research Data Bank*.

No responsibility is accepted by the Editors, by Cancer Research, Inc., by the American Association for Cancer Research, Inc., or by the publisher of the journal *Cancer Research* for the opinions expressed by contributors or for the content of the advertisements.

*Cancer Research* (ISSN 0008-5472) is published monthly for \$40 per year (for members of the American Association for Cancer Research) or \$80 and \$140 per year (for nonmembers) by Waverly Press, Inc., 428 E. Preston Street, Baltimore, Md. 21202. Second-class postage paid at Baltimore, Md. and additional mailing offices. POSTMASTER: Send address changes to *Cancer Research*, c/o Waverly Press, Inc., 428 E. Preston Street, Baltimore, Md. 21202.

Copyright 1982 by Cancer Research, Inc.





# Cancer Research

The Official Organ of the American Association for Cancer Research, Inc.

PETER N. MAGEE, *Editor*  
MARGARET FOTI, *Managing Editor*  
MARY ANNE MENNITE, *Assistant Managing Editor*

MICHAEL B. SHIMKIN, *Cover Editor*

## Editorial Assistants

RUTH E. FORTSON      ELIZABETH A. MOORE  
MARGARET A. CRAWFORD      JAN M. SANDS      HEIDE M. PUSZTAY  
CHRISTINE PYREAR      SANDRA E. PETTIE  
ELEANOR WILLIAMS HUNNEMANN      DONNA SHAWN CAMPBELL      RITA IAQUINTO  
DONNA D. GIACOBELLO      DANISE E. GRANT

## Associate Editors

Stuart A. Aaronson  
Richard H. Adamson  
Vincent G. Allfrey  
Claudio Basílico  
Stephen B. Baylin  
James A. Belli  
L. Lee Bennett, Jr.  
Alexander Bloch  
Clara D. Bloomfield  
Peter M. Blumberg  
Gerald P. Bodey  
Dani P. Bolognesi  
Carmia Borek  
Edward Bresnick  
R. Wallace Brockman  
Sam C. Brooks  
Ed Cadman  
George P. Canellos  
Paul P. Carbone  
Stephen K. Carter  
Bruce A. Chabner  
Judith K. Christman  
Martin J. Cline  
Donald S. Coffey  
Samuel M. Cohen  
Philip Cole  
Allan H. Conney  
Thomas L. Dao  
Etienne de Harven  
Friedrich Deinhardt  
Lyle A. Dethlefsen  
Vincent T. DeVita, Jr.  
Leila Diamond  
Benjamin Drewinko

Howard J. Eisen  
Gertrude B. Eliion  
Mortimer M. Elkind  
Rose Ruth Ellison  
Ronald W. Estabrook  
Isaiah J. Fidler  
Bernard Fisher  
Jørgen Fogh  
Joseph F. Fraumeni, Jr.  
Emil J. Freireich  
Charlotte Friend  
John J. Furth  
Robert C. Gallo  
Leo E. Gerweck  
Raymond V. Gilden  
Mary Catherine Glick  
David M. Goldenberg  
Stanley Goldfarb  
J. W. Grisham  
Lawrence Grossman  
DuPont Guerri, IV  
Pietro M. Gullino  
George M. Hahn  
Sen-itiroh Hakomori  
Robert E. Handschumacher  
M. G. Hanna, Jr.  
Richard W. Hanson  
Gordon C. Hard  
Curtis C. Harris  
Stephen S. Hecht  
Ingegerd Hellström  
Brian E. Henderson  
Gloria Heppner  
Ronald B. Herberman

Evan M. Hersh  
Vincent P. Hollander  
Eliezer Huberman  
Frank M. Huennekens  
Mary Ellen Jones  
R. L. Juliano  
Takeo Kakunaga  
David G. Kaufman  
Eva Klein  
Kurt W. Kohn  
Hilary Koprowski  
Margaret L. Kripke  
Lloyd W. Law  
Shutsung Liao  
Michael W. Lieberman  
William Lijinsky  
Martin Lipkin  
Gerald Litwack  
David B. Ludlum  
Veronica M. Maher  
Clement L. Markert  
Alvin M. Mauer  
Charles F. McKhann  
Daniel Medina  
Barbara R. Migeon  
Enrico Mihich  
Malcolm S. Mitchell  
Charles G. Moertel  
Malcolm A. S. Moore  
Paul Nettesheim  
A. Munro Neville  
Paul M. Newberne  
Garth L. Nicolson

Peter C. Nowell  
Albert H. Owens, Jr.  
Anthony E. Pegg  
Carl Peraino  
G. Barry Pierce  
Morton D. Prager  
David M. Prescott  
Fred Rosen  
Saul A. Rosenberg  
Janet D. Rowley  
Erkki Ruoslahti  
Dante G. Scarpelli  
Philip S. Schein  
James K. Selkirk  
Beatrice Singer  
Francis M. Sirotnak  
Thomas J. Slaga  
Edward A. Smuckler  
Arthur A. Spector  
Michael B. Sporn  
Bernard S. Strauss  
Armen H. Tashjian, Jr.  
George J. Todaro  
Yale J. Topper  
Paul O. P. Ts'o  
Frederick Urbach  
George Weber  
Sidney Weinhouse  
Arthur Weissbach  
Sherman M. Weissman  
Clifford W. Welsch  
Charles E. Wenner  
John M. Yuhas

**AMERICAN ASSOCIATION  
FOR CANCER RESEARCH, INC.**

**OFFICERS • April 1982–May 1983**

*President*

GERALD C. MUELLER

*Vice President*

GERTRUDE B. ELION

*Secretary-Treasurer*

ROBERT E. HANDSCHUMACHER

*Executive Director*

MARGARET FOTI

**BOARD OF DIRECTORS**

*Term Expiring May 1983*

LEILA DIAMOND  
G. C. MUELLER

LLOYD J. OLD  
RICHMOND T. PREHN

*Term Expiring May 1984*

GERTRUDE B. ELION  
SAMUEL HELLMAN

JOHN LASZLO  
TERESA J. VIETTI

*Term Expiring April 1985*

ISAIAH J. FIDLER  
ELLIOTT F. OSSERMAN

ROBERT E. PARKS JR.  
FREDERICK S. PHILIPS

*Ex Officio*

SIDNEY WEINHOUSE  
PETER N. MAGEE

BAYARD D. CLARKSON  
ROBERT E. HANDSCHUMACHER

MARGARET FOTI

*Note to members of the Association*—Changes of address should be sent promptly to Margaret Foti, Executive Director, American Association for Cancer Research, Inc., West Building, Room 301, Temple University School of Medicine, Philadelphia, Pa. 19140, to maintain an up-to-date file and ensure receipt of the journal by active members of the Association.

Copyright 1982 by Cancer Research, Inc.



# Cancer Research

The Official Organ of the American Association for Cancer Research, Inc.

Volume 42 / No. 12 / Part 2 / December 1982

## Index to Volume 42 1982

Author index .....	5289
Subject index .....	5323
Contents of volume .....	i

*We are pleased to acknowledge the efforts of Diana F. Certo, who prepared the author index to Volume 42, and of Dena Sher and the staff of the Franklin Research Center in Philadelphia, Pa., who prepared the subject index to Volume 42.*

## Index to Volume 42

## Author Index

## A

- Abanobi, S. E., Lombardi, B., and Shinozuka, H.** Stimulation of DNA Synthesis and Cell Proliferation in the Liver of Rats Fed a Choline-devoid Diet and Their Suppression by Phenobarbital, 412
- Abbas, M. K.** See Yoo, Kuo, Spector, Denning, Floyd, Whiteaker, Kim, Kim, Abbas, and Budd, 3596
- Abbas, M. K., Yoo, T.-J., and Viles, J.** Ultrastructure and Fatty Acid Composition of Fatty Acid-modified Morris 7777 Hepatoma Cells, 4639
- Abdallah, R. M.** See Meadows, Pierson, Abdallah, and Desai, 3056
- Abdel-Monem, M. M., Merdink, J. L., and Theologides, A.** Urinary Excretion of Monocetyl Polymers in Patients with Non-Hodgkin's Lymphoma, 2097, *Letter to the Editor*
- Abe, I., Saito, S., Hori, K., Suzuki, M., and Sato, H.** Role of Dephosphorylation in Accumulation of 1- $\beta$ -D-Arabinofuranosylcytosine 5'-Triphosphate in Human Lymphoblastic Cell Lines with Reference to Their Drug Sensitivity, 2846
- Abel, U., and Kaufmann, M.** A Methodologically Improved Definition of Chemosensitivity Indices, 1610, *Letter to the Editor*
- Abul-Hajj, Y. J.** Comparative Studies of Aromatase Inhibitors in Relation to the Significance of Estrogen Synthesis in Human Mammary Tumors, 3373\*
- Abul-Hajj, Y. J., and Kiang, D. T.** Metabolism of Testosterone by GR Mouse Mammary Tumors, 3510
- Achterrath, W.** See Seeber, Osieka, Schmidt, Achterrath, and Crooke, 4719
- Acton, R. T.** See Barger, Acton, Soong, Roseman, and Balch, 4276
- Adams, D. J.** See Ciocca, Adams, Bjerkke, Edwards, and McGuire, 4256
- Adams, J. K.** See Woodcock, Adams, and Cooper, 4744
- Adamson, D. J.** See Wheeler, Bowdon, Werline, Adamson, and Temple, 791
- Adolphe, M.** See Ronot, Adolphe, Kuch, Jaffray, Lechat, and Deysson, 3193
- Agarwal, R. P., Blatt, J., Miser, J., Sallan, S., Lipton, J. M., Reaman, G. H., Holcenberg, J., and Poplack, D. G.** Clinical Pharmacology of 9- $\beta$ -D-Arabinofuranosyladenine in Combination with 2'-Deoxycytosine, 3884
- Aguet, M.** See Keller, Aguet, Tovey, and Stitz, 1468
- Ahl, E. T., Jr.** See Rudders, Ahl, Delellis, Bernstein, and Begg, 349
- Ahlgren, J. D., Green, D. C., Tew, K. D., and Schein, P. S.** Repair of DNA Alkylation Induced in L1210 Leukemia and Murine Bone Marrow by Three Chloroethylnitrosoureas, 2605
- Ahmann, D. L.** See Ingle, Green, Ahmann, Edmonson, Nichols, Frytak, and Rubin, 3461\*\*
- Ahmann, F. R., Meyskens, F. L., Jr., Moon, T. E., Durie, B. G. M., and Salmon, S. E.** *In Vitro* Chemosensitivities of Human Tumor Stem Cells to the Phase II Drug 4'-(9-Acridinylamino)-methanesulfon-*m*-aniside and Prospective *In Vivo* Correlations, 4495
- Aitken, S. C., and Lippman, M. E.** Hormonal Regulation of Net DNA Synthesis in MCF-7 Human Breast Cancer Cells in Tissue Culture, 1727
- Akiyama, M.** See Kojima, Nakamura, Kanatani, and Akiyama, 2857
- Akiyama, S.-i.** See Kuwano, Akiyama, Kaneko, Ikezaki, Takaki, and Kimura, 280
- Albaladejo, V.** See Morel, Albaladejo, Bouvier, and Andre, 1492
- Alberts, D. S.** See Bowden, Garcia, Peng, and Alberts, 2660; Goodman, Einspahr, Alberts, Davis, Leigh, Chen, and Meyskens, 2087
- Alberts, D. S., Mackel, C., Pocolinko, R., and Salmon, S. E.** Phase I Clinical Investigation of 9,10-Anthracenedicarboxaldehyde Bis[(4,5-dihydro-1H-imidazol-2-yl)hydrazonate] Dihydrochloride with Correlative *In Vitro* Human Tumor Clonogenic Assay, 1170
- Albini, A.** See Parodi, Pala, Russo, Zunino, Balbi, Albini, Valerio, Cimperle, and Santi, 2277
- Albrecht, R.** See Forster, Gudat, Girard, Albrecht, Schmidt, Ludwig, and Obrecht, 1927
- Alcock, N.** See Kelsen, Scher, Alcock, Leyland-Jones, Donner, Williams, Greene, Burchenal, Tan, Philips, and Young, 4831
- Alitalo, K.** See Keski-Oja, Gahmberg, and Alitalo, 1147
- Alitalo, K., Halla, H., Vesterinen, E., and Vaheri, A.** Endo- and Ectocervical Human Uterine Epithelial Cells Distinguished by Fibronectin Production and Keratinization in Culture, 1142
- Allen, P.** See Ray, Raychaudhuri, and Allen, 4970
- Allfrey, V. G.** See Boffa, Gruss, and Allfrey, 382
- Allison, J. P.** See Nelson, Allison, Kline, and Sanders, 4625; Sanders, Allison, and Kline, 4532
- Althaus, F. R., Lawrence, S. D., Sattler, G. L., Longfellow, D. G., and Pitot, H. C.** Chemical Quantification of Unscheduled DNA Synthesis in Cultured Hepatocytes as an Assay for the Rapid Screening of Potential Chemical Carcinogens, 3010
- Altman, R.** See Hartge, Hoover, Altman, Austin, Cantor, Child, Key, Mason, Marrett, Myers, Narayana, Silverman, Sullivan, Swanson, Thomas, and West, 4784
- Altman, S. J.** See Hoogstraten, Fletcher, Gad-el-Mawla, Maloney, Altman, Vaughn, and Foulkes, 4788
- Ambrose, K. R., and Lowrey, J. S.** Effect of *cis*- and *trans*-Dichlorodiammineplatinum(II) on Human Tumor Cell Proliferation in Diffusion Chambers *In Vivo*, 1769
- Amouroux, J.** See Israël, Samak, Edelstein, Amouroux, Battesti, and de Saint Florent, 2489
- Anders, F.** See Barnekow, Scharf, Anders, and Bauer, 2429; Scharf, Barnekow, Bauer, and Anders, 4222
- Andersen, A. H.** See Kamura, Nielsen, Overgaard, and Andersen, 1744
- Anderson, L. W.** See Angello, Danielson, Anderson, and Hosick, 2207; Angello, Hosick, and Anderson, 4975
- Anderson, M. W.** See Ioannou, Wilson, and Anderson, 1199
- Anderson, W. K.** Activity of *Bis*-Carbamoyloxy-methyl Derivatives of Pyrroles and Pyrrolizines against Human Tumor Xenografts in Nude Mice, 2168
- Andersson, B., Beran, M., Peterson, C., and Tribukait, B.** Significance of Cellular Pharmacokinetics for the Cytotoxic Effects of Daunorubicin, 178
- Andre, J.** See Morel, Albaladejo, Bouvier, and Andre, 1492
- Angello, J. C., Danielson, K. G., Anderson, L. W., and Hosick, H. L.** Glycosaminoglycan Synthesis by Subpopulations of Epithelial Cells from a Mammary Adenocarcinoma, 2207
- Angello, J. C., Hosick, H. L., and Anderson, L. W.** Glycosaminoglycan Synthesis by a Cell Line (C1-S1) Established from a Preneoplastic Mouse Mammary Outgrowth, 4975
- Angier, R. B.** See Citarella, Wallace, Murdock, Angier, Durr, and Forbes, 440
- Antecol, M. H., and Mukherjee, B. B.** Effects of 12-O-Tetradecanoylphorbol-13-acetate on Fibroblasts from Individuals Genetically Predisposed to Cancer, 3870
- Anzano, M. A., Roberts, A. B., Meyers, C. A., Komoriya, A., Lamb, L. C., Smith, J. M., and Sporn, M. B.** Synergistic Interaction of Two Classes of Transforming Growth Factors from Murine Sarcoma Cells, 4776, *Communication*
- Aoki, T.** See Denton, Lui, Aoki, Sebolt, Takeda, Eble, Glover, and Weber, 1176
- Appleton, B. S., Goetchius, M. P., and Campbell, T. C.** Linear Dose-Response Curve for the Hepatic Macromolecular Binding of Aflatoxin B<sub>1</sub> in Rats at Very Low Exposures, 3659
- Ara, G.** See Colofiore, Ara, Berry, and Belli, 3934
- Arafah, B. M.** See Manni, Rainieri, Arafah, Finegan, and Pearson, 3492; Pearson, Manni, and Arafah, 3424\*
- Arai, H.** See Shionoya, Arai, Koyanagi, Ohtake, Kobayashi, Kodama, Kato, Tung, and Lin, 2872
- Arbeit, J. M., Burt, M. E., Rubinstein, L. V., Gorschoth, C. M., and Brennan, M. F.** Glucose Metabolism and the Percentage of Glucose Derived from Alanine: Response to Exogenous Glucose Infusion in Tumor-bearing and Non-Tumor-bearing Rats, 4936
- Archer, M. C.** See Labuc and Archer, 3181
- Argyris, T. S.** See Fürstenberger, Richter, Argyris, and Marks, 342
- Arimoto, H.** See Tanooka, Tanaka, and Arimoto, 4740
- Arlin, Z.** See Kreis, Arlin, Yagoda, Leyland-Jones, and Fiori, 2514
- Armitage, M.** See Kovnat, Armitage, and Tannock, 3696
- Armstrong, P. B., Quigley, J. P., and Sidebottom, E.** Trans epithelial Invasion and Intramesenchymal Infiltration of the Chick Embryo Chorioallantois by Tumor Cells Lines, 1826
- Armstrong, R. D.** See Connolly, Armstrong, Diasio, and Kaplan, 4927
- Arthur, D. C.** See Robison, Arthur, Ball, Danzl, and Nesbit, 4289
- Asashima, M., Komazaki, S., Satou, C., and Oinuma, T.** Seasonal and Geographical Changes of Spontaneous Skin Papillomas in the Japanese Newt *Cynops pyrrhogaster*, 3741
- Ascoli, D. M.** See Corkery, Leonard, Henderson, Gelman, Hourihan, Ascoli, and Salhanick, 3409\*\*
- Ashendel, C. L.** See Perrella, Ashendel, and Boutwell, 3496
- Ashley, M. P.** See Yarkoni, Ashley, Zbar, Sugimoto, and Rapp, 2544
- Astrup, E. G.** See Richards and Astrup, 4143
- Atchley, C. E.** See Griffin, Owen, Atchley, Novelli, and Solomon, 4505
- Atkins, H. L.** See Fairchild, Greenberg, Watts, Packer, Atkins, Som, Hannon, Brill, Fand, and McNally, 556
- Atkinson, B. F., Ernst, C. S., Herlyn, M., Ste-**

\* February Supplement, "Pediatric Cancer and Nutrition Workshop"

\*\* August Supplement, "Aromatase: New Perspectives for Breast Cancer"



- plewski, Z., Sears, H. F., and Koprowski, H. Gastrointestinal Cancer-associated Antigen in Immunoperoxidase Assay, 4820
- Au, J. L.-S., Rustum, Y. M., Ledesma, E. J., Mittelman, A., and Creaven, P. J. Clinical Pharmacological Studies of Concurrent Infusion of 5-Fluorouracil and Thymidine in Treatment of Colorectal Carcinomas, 2930
- Au, W. W. See Meistrich, Finch, da Cunha, Hacker, and Au, 122
- Auer, G., Ono, J., Nasiell, M., Caspersen, T., Kato, H., Konaka, C., and Hayata, Y. Reversibility of Bronchial Cell Atypia, 4241
- Augenlicht, L. H., and Kobrin, D. Cloning and Screening of Sequences Expressed in a Mouse Colon Tumor, 1088
- Augeron, C. See Labois, Augeron, Couturier-Turpin, Gaspach, Cheret, and Potet, 1541
- Aust, J. C. See Comis, Issell, Pittman, Ginsberg, Rudolph, Aust, DiFino, Tinsley, Poiesz, and Crooke, 2944
- Austin, D. F. See Hartge, Hoover, Altman, Austin, Cantor, Child, Key, Mason, Marrett, Myers, Narayana, Silverman, Sullivan, Swanson, Thomas, and West, 4784
- Autrup, H., Grafstrom, R. C., Brugh, M., Lechner, J. F., Haugen, A., Trump, B. F., and Harris, C. C. Comparison of Benzo(a)pyrene Metabolism in Bronchus, Esophagus, Colon, and Duodenum from the Same Individual, 934
- Autrup, H., and Stoner, G. D. Metabolism of *N*-Nitrosamines by Cultured Human and Rat Esophagus, 1307
- Avadhani, N. G. See Bhat, Emeh, Niranjan, and Avadhani, 1876
- Avner, P. See Muramatsu, Muramatsu, and Avner, 1749
- Avramis, V. I., and Plunkett, W. Metabolism and Therapeutic Efficacy of 9- $\beta$ -D-Arabinofuranosyl-2-fluoroadenine against Murine Leukemia P388, page 2587
- Aylsworth, C. F. See Sylvester, Aylsworth, Van Vugt, and Meites, 4943
- Azocar, J. See Lee, Essex, de Noronha, and Azocar, 3995
- B**
- Baba, S. See Takano, Shirai, Ogiso, Tsuda, Baba, and Ito, 4236
- Babaya, K., Miyata, Y., Chmiel, J. S., and Oyasu, R. Effects of Rat Urine Fractionated by Molecular Weight on Urinary Bladder Carcinogenesis, 15
- Bachur, N. R., Gee, M. V., and Friedman, R. D. Nuclear Catalyzed Antibiotic Free Radical Formation, 1078
- Backer, J. M., and Weinstein, I. B. Interaction of Benzo(a)pyrene and Its Dihydrodiol-Epoxy Derivative with Nuclear and Mitochondrial DNA in C3H/10T1/2 Cell Cultures, 2764
- Bacon, P. E. See Sato, Carter, Bacon, and Cory, 4353
- Baechtel, F. S., and Prager, M. D. Interaction of Antigens with Dimethyldioctadecylammonium Bromide, a Chemically Defined Biological Response Modifier, 4959
- Baehner, R. L. See Rickard, Baehner, Coates, Weetman, Provisor, and Grosfeld, 766\*
- Baird, S. M., Beattie, G. M., Lannom, R. A., Lipsick, J. S., Jensen, F. C., and Kaplan, N. O. Induction of Lymphoma in Antigenically Stimulated Athymic Mice, 198
- Baker, N. See Lyon, Kannan, Ookhtens, and Baker, 132
- Bakke, A. C. See Osborne, Bakke, and Yu, 513
- Bakke, A., Gøthlin, J. H., Haukaas, S. A., and Kalland, T. Augmentation of Natural Killer Cell Activity after Arterial Embolization of Renal Carcinomas, 3880
- Balaban, G., and Gilbert, F. Homogeneously Staining Regions in Direct Preparations from Human Neuroblastomas, 1838
- Balbi, C. See Parodi, Pala, Russo, Zunino, Balbi, Albini, Valerio, Cimberle, and Santi, 2277
- Balch, C. See Barger, Acton, Soong, Roseman, and Balch, 4276
- Baldwin, R. W., and Klein, G. Sapporo Cancer Seminar: Escape of Tumor Cells from Immune Controls, 1608, Meeting Report
- Balish, E. See Witter, Balish, and Gatley, 3654
- Ball, D. W. See Robison, Arthur, Ball, Danzl, and Nesbit, 4289
- Baltz, R. See Barranco, Townsend, Costanzi, May, Baltz, O'Quinn, Leipzig, Hokanson, Guseman, and Boerwinkle, 2899
- Bamburg, J. R. See Coss, Dewey, and Bamburg, 1059
- Banjar, Z. See Duhl, Banjar, Briggs, Page, and Hnilica, 594
- Banner, W. P., Tan, Q. H., and Zedeck, M. S. Selenium and the Acute Effects of the Carcinogens, 2-Acetylaminofluorene and Methylazoxymethanol Acetate, 2985
- Bardos, T. J. See Ho, Mayhew, Preisler, and Bardos, 1740
- Barenholz, Y. See Gabizon, Dagan, Goren, Barneholz, and Fuks, 4734
- Barfknecht, T. R., and Little, J. B. Abnormal Sensitivity of Skin Fibroblasts from Familial Polyposis Patients to DNA Alkylating Agents, 1249
- Barford, N. M. Isolation and Partial Identification of Eight Endogenous G<sub>i</sub> Inhibitors of JB-1 Ascites Tumor Cell Proliferation, 2420
- Barger, B. O., Acton, R. T., Soong, S.-J., Roseman, J., and Balch, C. Increase of HLA-DR4 in Melanoma Patients from Alabama, 4276
- Barlogie, B. See Drewinko, Yang, and Barlogie, 107; Stragand, Drewinko, Henderson, Grossie, Stephens, Barlogie, and Trujillo, 3111
- Barlow, J. J. See Bhattacharya, Chatterjee, Barlow, and Fuji, 1650
- Barna, B. P. See Deodhar, James, Chiang, Edinger, and Barna, 5084
- Barnekow, A. See Scharlt, Barnekow, Bauer, and Anders, 4222
- Barnekow, A., Scharlt, M., Anders, F., and Bauer, H. Identification of a Fish Protein Associated with a Kinase Activity and Related to the Rous Sarcoma Virus Transforming Protein, 2429
- Barnes, S. See Riccardi, Vigersky, Barnes, Bleyer, and Poplack, 1617
- Barnes, Z. See Fidler, Barnes, Fogler, Kirsh, Bugelski, and Poste, 496
- Barone, R. M. See Judd, Barone, Laufer, Gambone, Monfort, and Lasley, 3345\*\*
- Baroni, C. D. See Ruco, Procopio, Uccini, Marcocelli, and Baroni, 2063
- Barr, P. J. See Jarvis, Chapman, Ngan-Lee, Rutledge, Barr, and Paterson, 4358
- Barranco, S. C., May, J. T., Boerwinkle, W., Nichols, S., Hokanson, K. M., Schumann, J., Gohde, W., Bryant, J., and Guseman, L. F. Enhanced Cell Killing through the Use of Cell Kinetics-directed Treatment Schedules for Two-Drug Combinations *In Vitro*, 2894
- Barranco, S. C., Townsend, C. M., Costanzi, J. J., May, J. T., Baltz, R., O'Quinn, A. G., Leipzig, B., Hokanson, K. M., Guseman, L. F., and Boerwinkle, W. R. Use of 1,2:5,6-Dianhydrogalactitol in Studies on Cell Kinetics-directed Chemotherapy Schedules in Human Tumors *In Vivo*, 2899
- Barrett, J. C. See Boyd, Barrett, and Eling, 2628; McLachlan, Wong, Degen, and Barrett, 3040
- Barrett, J. C., Brown, M. T., and Siskin, E. E. Deacylation of 12-O-[<sup>3</sup>H]Tetradecanoylphorbol-13-acetate and [<sup>3</sup>H]Phorbol-12,13-didecanoate in Hamster Skin and Hamster Cells in Culture, 3098
- Bartholomew, J. C. See Varga, Wiesehahn, Bartholomew, and Hearst, 2223
- Bartlett, G. L. See Boyer, Kreider, and Bartlett, 2211
- Bartocci, A., Read, E. L., Welker, R. D., Schlick, E., Papademetriou, V., and Chirigos, M. A. Enhancing Activity of Various Immunomodulating Agents on the Delayed-Type Hypersensitivity Response in Mice, 3514
- Bartsch, H. See Camus, Friesen, Croisy, and Bartsch, 3201; Malaveille, Brun, Kolar, and Bartsch, 1446
- Basala, M. See Raso, Ritz, Basala, and Schlossman, 457
- Basilico, C. See Brown and Basilico, 1909
- Bastida, E., Ordinas, A., Giardina, S. L., and Jamieson, G. A. Differentiation of Platelet Aggregating Effects of Human Tumor Cell Lines Based on Inhibition Studies with Apyrase, Hirudin, and Phospholipase, 4348
- Batardy-Grégoire, M. See Razzouk, Batardy-Grégoire, and Roberfroid, 4712
- Bateman, J. R. See Chlebowski, Gota, Chan, Weiner, Block, and Bateman, 4827
- Batist, G. See Kawamura, Moldawer, Keenan, Batist, Bothe, Bistrain, and Blackburn, 824
- Battesti, J.-P. See Israël, Samak, Edelstein, Amouroux, Battesti, and de Saint Florent, 2489
- Bauer, H. See Barnekow, Scharlt, Anders, and Anders, 4222
- Bauer, K. D., Keng, P. C., and Sutherland, R. M. Isolation of Quiescent Cells from Multicellular Tumor Spheroids Using Centrifugal Elutriation, 72
- Baumal, R., Musclow, E., Farkas-Himsley, H., and Marks, A. Variants of an Interspecies Hybridoma with Altered Tumorigenicity and Protective Ability against Mouse Myeloma Tumors, 1904
- Baumann, H., and Eldredge, D. Influence of the Liver on the Profile of Circulating Antigens Recognized by Antiserum against Hepatoma Membrane Glycoproteins, 2398
- Baumgärtl, H. See Jähde, Rajewsky, and Baumgärtl, 1498
- Baylin, S. B. See Goodwin and Baylin, 1361; Luk, Goodwin, Gazdar, and Baylin, 3070
- Beal, S. L. See Horn, Beal, Walach, Lubich, Spiegel, and Marton, 3248
- Beall, P. T., Brinkley, B. R., Chang, D. C., and Hazlewood, C. F. Microtubule Complexes Correlated with Growth Rate and Water Proton Relaxation Times in Human Breast Cancer Cells, 4124
- Bean, J. A. See Sherman, Wallace, and Bean, 3286\*\*
- Beardsley, P. See Uren, Hargis, and Beardsley, 4068
- Beattie, C. W. See Stanberry, Das Gupta, and Beattie, 2238; Stanberry, Lindsey, and Beattie, 2242
- Beattie, G. M. See Baird, Beattie, Lannom, Lipsick, Jensen, and Kaplan, 198
- Beattie, W. G. See Mirabelli, Beattie, Huang, Prestayko, and Crooke, 1399
- Becci, P. J. See Thompson, Meeker, Becci, and Kokoska, 4954; Thompson, Meeker, Tagliaterra, and Becci, 903
- Beich, M. J., and Reddy, J. K. Separation and Characterization of Neoplastic Cell Subpopulations of a Transplantable Rat Pancreatic Acinar Carcinoma, 3729
- Beck, G. See DiStefano, Beck, Lane, and Zucker, 207
- Beck, W. T., and Cirtain, M. C. Continued Expression of Vinca Alkaloid Resistance by CCRF-CEM Cells after Treatment with Tunicamycin or Pronase, 184
- Becker, F. F. Morphological Classification of Mouse Liver Tumors Based on Biological Characteristics, 3918
- Becker, Y. See Shiloh, Tabor, and Becker, 2247
- Beckett, M. L. See Starling, Sieg, Beckett, Schellhammer, Ladaga, and Wright, 3084
- Bedell, M. A. See Lindamood, Bedell, Billings, and Swenberg, 4153

- Bedell, M. A., Lewis, J. G., Billings, K. C., and Swenberg, J. A. Cell Specificity in Hepatocarcinogenesis: Preferential Accumulation of  $O^6$ -Methylguanine in Target Cell DNA during Continuous Exposure of Rats to 1,2-Dimethylhydrazine, 3079
- Bedenko, V. See LaVoie, Bedenko, Tulley-Freiler, and Hoffmann, 4045
- Beemer, F. A., Vluc, A. M. C., Rijkse, G., Hamburg, A., and Staal, G. E. J. Characterization of Some Glycolytic Enzymes from Human Retina and Retinoblastoma, 4228
- Begg, C. B. See Rudders, Ahl, Delellis, Bernstein, and Begg, 349
- Begleiter, A., Grover, J., and Goldenberg, G. J. Mechanism of Efflux of Melphalan from L5178Y Lymphoblasts *In Vitro*, 987
- Beland, F. A. See Martin, Beland, Roth, and Kadlubar, 2678
- Beland, F. A., Dooley, K. L., and Jackson, C. D. Persistence of DNA Adducts in Rat Liver and Kidney after Multiple Doses of the Carcinogen N-Hydroxy-2-acetylaminofluorene, 1348
- Bella, A., Jr. See Tsao, Morita, Bella, Luu, and Kim, 1052
- Bellamy, A. S. See Hill, Whatley, Bellamy, Jenkins, and Whelan, 2852
- Belli, J. A. See Colofiore, Ara, Berry, and Belli, 3934
- Belvedere, M. See Pedrali-Noy, Belvedere, Crepaldi, Focher, and Spadari, 3810
- Ben, T. See Yuspa, Ben, Hennings, and Licht, 2344
- Benckroun, S. See Corberand, Benckroun, Nguyen, Laharague, and Pris, 1595
- Benedict, W. F., Wheatley, W. L., and Jones, P. A. Differences in Anchorage-dependent Growth and Tumorigenicities between Transformed C3H/10T1/2 Cells with Morphologies that Are or Are Not Reverted to a Normal Phenotype by Ascorbic Acid, 1041
- Bengtsson, M. See Montelius, Papadopoulos, Bengtsson, and Rystrom, 1479
- Benjamin, R. S. See Plunkett, Benjamin, Keating, and Freireich, 2092; Stewart, Leavens, Maor, Feun, Luna, Bonura, Caprioli, Loo, and Benjamin, 2474; Stewart, Wallace, Feun, Leavens, Young, Handel, Mavligit, and Benjamin, 2059
- Bennegård, K. See Lundholm, Bennegård, Edén, Svaninger, Emery, and Rennie, 4807
- Bennegård, K., Edén, E., Ekman, L., Scherstén, T., and Lundholm, K. Metabolic Balance across the Leg in Weight-losing Cancer Patients Compared to Depleted Patients without Cancer, 4293
- Bennett, L. L., Jr. See Chang, Brockman, and Bennett, 3033; White, Shaddix, Brockman, and Bennett, 2260
- Bennett, M. See Fredrickson and Bennett, 3601
- Bennoun, M. See Fourcade, Farhi, Bennoun, and Tapiero, 1950
- Benson, E. A., and Holdaway, I. M. Regulation of Insulin Binding to Human Mammary Carcinoma, 1137
- Benton, B. See Preston-Martin, Yu, Benton, and Henderson, 5240
- Benz, C., Tillis, T., Tattelman, E., and Cadman, E. Optimal Scheduling of Methotrexate and 5-Fluorouracil in Human Breast Cancer, 2081
- Beran, M. See Andersson, Beran, Peterson, and Tribukait, 178
- Berchtold, W. See Laissue, Bürki, and Berchtold, 1125
- Berd, D., Mastrangelo, M. J., Engstrom, P. F., Paul, A., and Maguire, H. Augmentation of the Human Immune Response by Cyclophosphamide, 4862
- Berger, D. See Forbes, Davies, Urbach, Berger, and Cole, 2796
- Berger, N. A., Catino, D. M., and Vietti, T. J. Synergistic Antileukemic Effect of 6-Aminocytosinamide and 1,3-Bis(2-chloroethyl)-1-nitrosourea on L1210 Cells *In Vitro* and *In Vivo*, 4382
- Bergeron, R. J. See Porter, Bergeron, and Stolowich, 4072
- Berkelhammer, J., Oxenhandler, R. W., Hook, R. R., Jr., and Hennessy, J. M. Development of a New Melanoma Model in C57BL/6 Mice, 3157
- Bernal, S. D., and Chen, L. B. Induction of Cytoskeleton-associated Proteins During Differentiation of Human Myeloid Leukemic Cell Lines, 5106
- Bernath, A. See Lipton, Harvey, Santen, Boucher, White, Bernath, Dixon, Richards, and Shafik, 3434\*
- Bernier, D. See Landry, Bernier, Chrétien, Nicole, Tanguay, and Marceau, 2457
- Bernoco, D. See Iwaki, Kasai, Terasaki, Bernoco, Park, Cicciarelli, Heintz, Saxton, Burk, and Morton, 409
- Berns, M. W., Dahlman, A., Johnson, F. M., Burns, R., Sperling, D., Gultinan, M., Siemens, A., Walter, R., Wright W., Hammer-Wilson, M., and Wile, A. *In Vitro* Cellular Effects of Hematoporphyrin Derivative, 2325
- Bernstein, I. L. Physiological and Psychological Mechanisms of Cancer Anorexia, 715\*
- Bernstein, S. See Rudders, Ahl, Delellis, Bernstein, and Begg, 349
- Berrigan, M. J., Marinello, A. J., Pavelic, Z., Williams, C. J., Struck, R. F., and Gurtso, H. L. Protective Role of Thiols in Cyclophosphamide-induced Urotoxicity and Depression of Hepatic Drug Metabolism, 3688
- Berry, D. See Colofiore, Ara, Berry, and Belli, 3934
- Bertino, J. R. See Weir, Cashmore, Dreyer, Graham, Hsiao, Moroson, Sawicki, and Bertino, 1696
- Bettaieb, A. See Tesla, Henri, Bettaieb, Titeux, Vainchenker, Tonhat, Dockleair, and Rochant, 4694
- Bettelheim, R. See Coombes, Chilvers, Dowsett, Gazet, Ford, Bettelheim, Gordon, Smith, Zava, Powles, and Investigators of the Collaborative Breast Cancer Project, 3415\*\*
- Bex, C. See Phillips, Bex, Lake, Cottrell, and Gangolli, 3761
- Bhakta, M. See Dow, Bhakta, and Williams, 5262
- Bhat, N. K., Emeh, J. K., Niranjan, B. G., and Avadhani, N. G. Inhibition of Mitochondrial Protein Synthesis during Early Stages of Aflatoxin B<sub>1</sub>-induced Hepatocarcinogenesis, 1876
- Bhattacharya, M., Chatterjee, S. K., Barlow, J. J., and Fujii, H. Monoclonal Antibodies Recognizing Tumor-associated Antigen of Human Ovarian Mucinous Cystadenocarcinomas, 1650
- Bhuta, S. M. See Messing, Fahey, deKernion, Bhuta, and Bubbers, 2392
- Bhuyan, B. K., Newell, K. A., Crampton, S. L., and Von Hoff, D. D. CC-1065 (NSC 298223), a Most Potent Antitumor Agent: Kinetics of Inhibition of Growth, DNA Synthesis, and Cell Survival, 3532
- Biegel, J. A., Boggs, S. S., and Conner, M. K. *In Vivo* Sister Chromatid Exchange and Cellular Replication Kinetics of Normal and Lymphoma AKR Bone Marrow Cells, 2813
- Biegel, J. A., Conner, M. K., and Boggs, S. S. Cellular Replication Kinetics and Persistence of Sister Chromatid Exchange-inducing Lesions in Normal and Lymphoma AKR Cells following Exposure to 1,3-Bis(2-chloroethyl)-1-nitrosourea, 2816
- Bigner, D. D. See Jones, Ruoslahti, Schold, and Bigner, 168; Wikstrand and Bigner, 267
- Bigotti, A. See Natali, Wilson, Imai, Bigotti, and Ferrone, 583
- Billings, K. C. See Bedell, Lewis, Billings, and Swenberg, 3079; Lindamood, Bedell, Billings, and Swenberg, 4153
- Billings, P. C., and Heidelberger, C. Effects of Praziquantel, a New Antischistosomal Drug, on the Mutation and Transformation of Mammalian Cells, 2692
- Bird, C. E., Masters, V., Sterns, E. E., and Clark, A. F. Effects of Aminoglutethimide on  $\Delta^5$ -Androstenediol Metabolism in Postmenopausal Women with Breast Cancer, 4797
- Birt, D. F., Lawson, T. A., Julius, A. D., Runice, C. E., and Salmassi, S. Inhibition by Dietary Selenium of Colon Cancer Induced in the Rat by Bis(2-oxopropyl)nitrosamine, 4455
- Bishop, W. W. See Puji, Shuker, Bishop, Falchuk, Tannenbaum, and Thilly, 2601
- Bistrian, B. R. See Kawamura, Moldawer, Keenan, Batist, Bothe, Bistrian, and Blackburn, 824
- Bjercke, R. J. See Ciocca, Adams, Bjercke, Edwards, and McGuire, 4256
- Björk, P., Forsgren, B., Gustafsson, J.-Å., Pousette, Å., and Högberg, B. Partial Characterization and "Quantitation" of a Human Prostatic Estramustine-binding Protein, 1935
- Black, P. W. See Rapaport, Schroder, Kabaceni, and Black, 4918
- Blackburn, G. L. See Kawamura, Moldawer, Keenan, Batist, Bothe, Bistrian, and Blackburn, 824
- Blackburn, G. R., Schnabel, S. J., Danley, J. M., Hogue-Angeletti, R. A., and Sorof, S. Principal Polypeptide Target of Carcinogen at the Beginning of Liver Carcinogenesis by Three Carcinogens, 4664
- Blackstein, M. E. See Perel, Blackstein, and Kilinger, 3369\*\*
- Blatt, J. See Agarwal, Blatt, Miser, Sallan, Lipton, Reaman, Holcenberg, and Poplack, 3884
- Bleyer, W. A. See Riccardi, Vigersky, Barnes, Bleyer, and Poplack, 1617; Steinberg, Campbell, Bleyer, and Hillman, 1279
- Bloch, A. See Takeda, Minowada, and Bloch, 5152
- Block, J. B. See Chlebowski, Gota, Chan, Weiner, Block, and Bateman, 4827; Heber, Chlebowski, Ishibashi, Herrold, and Block, 4815
- Block, N. L. See Pollack, Irvin, Block, Lipton, Stover, and Clafin, 2184
- Blomquist, C. H. See Levi, Hruskesky, Blomquist, Lakatua, Haus, Halberg, and Kennedy, 950
- Bloomer, L. C., Wotring, L. L., and Townsend, L. B. Cytotoxicity of a New Uridine Analog, 4-Hydroxy-1-( $\beta$ -D-ribofuranosyl)pyridazin-6-one, and Its Interaction with Uridine Kinase, 100
- Blossey, H.-C. See Nagel, Wander, and Blossey, 3442\*\*
- Blum, R. H. See Spiegel, Blum, Levin, Pinto, Wernz, Speyer, Hoffman, and Muggia, 354
- Blumberg, P. M. See Colburn, Gindhart, Hegamyer, Blumberg, Delclos, Magun, and Lockyer, 3093; Delclos and Blumberg, 1227
- Blumenschein, G. R. See Buzdar, Powell, and Blumenschein, 3448\*\*
- Bock, K. W., Lillienblum, W., Pfeil, H., and Eriksson, L. C. Increased Uridine Diphosphate-Glucuronyltransferase Activity in Preneoplastic Liver Nodules and Morris Hepatomas, 3747
- Boctor, A. M., and Bystry, J.-C. Degradation of Tumor-associated Antigens Shed by Human Melanoma Cells in Culture, 2121
- Boehm, T. L. J., and Drahovsky, D. Elevated Level of Enzymatic DNA Methylation in Cells Treated with 1- $\beta$ -D-Arabinofuranosylcytosine, 1537
- Boerwinkle, W. R. See Barranco, May, Boerwinkle, Nichols, Hokanson, Schumann, Gohde, Bryant, and Guseman, 2894; Barranco, Townsend, Costanzi, May, Baltz, O'Quinn, Leipzig, Hokanson, Guseman, and Boerwinkle, 2899
- Boesel, R. W. See Shain, Gorelic, Boesel, Radwin, and Lamm, 4849
- Boffa, L. C., Gruss, R. J., and Allfrey, V. G. Aberrant and Nonrandom Methylation of Chromosomal DNA-binding Proteins of Colonic Epithelial Cells by 1,2-Dimethylhydrazine, 382
- Bogaars, H. A. See Dexter, Matook, Meitner, Bogaars, Jolly, Turner, and Calabresi, 2705

- Boger, E. See Hass, McKeown, Sardella, Boger, Ghoshal, and Huberman, 1646
- Boggs, S. S. See Biegel, Boggs, and Conner, 2813; Biegel, Conner, and Boggs, 2816
- Bogliolo, G. See Pannacciulli, Massa, Bogliolo, Ghio, and Sobrero, 530
- Boland, C. J. See Lazo, Boland, and Schwartz, 4026
- Bolmer, S. D., and Wolf, G. Stimulation of Fibronectin Production by Retinoic Acid in Mouse Skin Tumors, 4465
- Bonadonna, G. Chemotherapy Strategies to Improve the Control of Hodgkin's Disease: The Richard and Hinda Rosenthal Foundation Memorial Lecture, 4309
- Bonura, J. See Stewart, Leavens, Maor, Feun, Luna, Bonura, Caprioli, Loo, and Benjamin, 2474
- Boohaker, E. A. See Whitehurst, Mashburn, Pretlow, Bradley, and Boohaker, 4300
- Bootsma, D. See Jaspers, de Wit, Regulski, and Bootsma, 335
- Borch, R. F. See Low, Borch, and Sladek, 830
- Borden, E. C., Hogan, T. F., and Voelkel, J. G. Comparative Antiproliferative Activity *In Vitro* of Natural Interferons  $\alpha$  and  $\beta$  for Diploid and Transformed Human Cells, 4948
- Borek, E. Modified Nucleosides and Cancer, 2099, Meeting Report
- Borghetti, A. F. See Piedimonte, Borghetti, and Guidotti, 4690
- Borgna, J.-L. See Coezy, Borgna, and Rochefort, 317
- Borman, L. S., Swartzendruber, D. C., and Littlefield, L. G. Establishment of Two Parental Cell Lines and Three Clonal Cell Strains from Rat Colonic Carcinoma, 5074
- Borowitz, M. J. See Metzgar, Gaillard, Levine, Tuck, Bessen, and Borowitz, 601
- Bossen, E. H. See Metzgar, Gaillard, Levine, Tuck, Bessen, and Borowitz, 601
- Bothe, A., Jr. See Kawamura, Moldawer, Keenan, Batist, Bothe, Bistrain, and Blackburn, 824
- Boucher, A. E. See Harvey, Lipton, White, Santen, Boucher, Shafik, Dixon, and Members of The Central Pennsylvania Oncology Group, 3451\*\*
- Boucher, A. E. See Harvey, Lipton, White, Santen, Boucher, Shafik, Dixon, Richards, and Shafik, 3434\*\*
- Boucher, A. E. See Metzgar, Gaillard, Levine, Tuck, Bessen, and Borowitz, 601
- Boutwell, R. K. See Perrella, Ashendel, and Boutwell, 3496; Verma, Conrad, and Boutwell, 3519
- Bouvier, J. See Morel, Albaladejo, Bouvier, and Andre, 1492
- Bowden, G. T., Garcia, D., Peng, Y.-M., and Alberts, D. S. Molecular Pharmacology of the Anthracycline Drug 9,10-Anthracenedicarboxaldehyde Bis[(4,5-dihydro-1H-imidazo[2-yl]hydrazono)] Dihydrochloride (CI 216, 942), 2660
- Bowdon, B. J. See Wheeler, Bowdon, Werline, Adamson, and Temple, 791
- Bowers, S. W. See Duch, Edelstein, Bowers, and Nichol, 3987
- Bowersox, J. C., and Sorgente, N. Chemotaxis of Aortic Endothelial Cells in Response to Fibronectin, 2547
- Bowie, M. See Teller, Stock, Bowie, Chou, and Budinger, 4408
- Bowles, C. See Holohan, Phillips, Bowles, and Deisseroth, 3663
- Boyd, J. A. See Guthrie, Robertson, Zeiger, Boyd, and Eling, 1620
- Boyd, J. A., Barrett, J. C., and Eling, T. E. Prostaglandin Endoperoxide Synthetase-dependent Cooxidation of (±)-trans,7,8-Dihydroxy-7,8-dihydrobenzo(a)pyrene in C3H/10T1/2 Clone 8 Cells, 2628
- Boyer, C. M., Kreider, J. W., and Bartlett, G. L. Regulation of the Expression of Adoptive Tumor Rejection Immunity by Recipient Cyclophosphamide-sensitive Cells, 2211
- Braatz, J. A. See Princier, McIntire, and Braatz, 843
- Braatz, J. A., Scharfe, T. R., Princier, G. L., and McIntire, K. R. Characterization of a Human Lung Tumor-associated Antigen and Development of a Radioimmunoassay, 849
- Bradley, E. L., Jr. See Pretlow, Whitehurst, Pretlow, Hunt, Jacobs, McKenzie, McDaniel, Hall, and Bradley, 4842; Whitehurst, Mashburn, Pretlow, Bradley, and Boohaker, 4300
- Bradley, M. O. See Sina, Bradley, and O'Brien, 4116
- Bradley, M. O., Dysart, G., Fitzsimmons, K., Harbach, P., Lewin, J., and Wolf, G. Measurements by Filter Elution of DNA Single- and Double-Strand Breaks in Rat Hepatocytes: Effects of Nitrosamines and  $\gamma$ -Irradiation, 2592
- Bradlow, H. L. A Reassessment of the Role of Breast Tumor Aromatization, 3382\*\*
- Brandt, A. E. See Killian and Brandt, 4263
- Brannman, A. R. See Chadwick, Silveira, MacGregor, Brannman, Liss, and Yesair, 627
- Branum, E. L. See Robinson, Branum, Volkenant, and Moses, 2633
- Braun, S. J. See Parsons, Marko, Braun, and Wansor, 4574
- Braun, T. J. See Chou, Burchenal, Schmid, Braun, Su, Watanabe, Fox, and Philips, 3957
- Braunschweiler, P. G., Ting, H. L., and Schiffer, L. M. Receptor-dependent Antiproliferative Effects of Corticosteroids in Radiation-induced Fibrosarcomas and Implications for Sequential Therapy, 1686
- Breeding, J. See Lowe, Connor, Breeding, and Chalet, 3941
- Breitman, T. R. See Ferrero, Tarella, Gallo, Ruscetti, and Breitman, 4421; Olsson and Breitman, 3924; Olsson, Breitman, and Gallo, 3928
- Brennan, M. F. See Arbeit, Burt, Rubinstein, Gorschoth, and Brennan, 4936; Demetropoulos and Brennan, 756\*\*
- Brennan, M. F. See Arbeit, Burt, Rubinstein, Gorschoth, and Brennan, 4936; Demetropoulos and Brennan, 756\*\*
- Brenner, B. G., Jothy, S., Shuster, J., and Fuks, A. Monoclonal Antibodies to Human Lung Tumor Antigens Demonstrated by Immunofluorescence and Immunoprecipitation, 3187
- Briggs, R. C. See Duhl, Banjar, Briggs, Page, and Hnilica, 594; Schmidt, Gronert, Page, Briggs, and Hnilica, 3164; Wojtkowiak, Duhl, Briggs, Hnilica, Stein, and Stein, 4546
- Brightwell, J., and Tseng, M. T. Peroxidase Content in Cell Subpopulations of 7,12-Dimethylbenz(a)anthracene-induced Mammary Tumors in Rats, 4562
- Brill, A. B. See Fairchild, Greenberg, Watts, Packer, Atkins, Som, Hannon, Brill, Fand, and McNally, 556; Fairchild, Packer, Greenberg, Som, Brill, Fand, and McNally, 5126
- Brinkley, B. R. See Beall, Brinkley, Chang, and Hazlewood, 4124
- Brittebo, E. B. See Löfberg, Brittebo, and Tjälve, 2677
- Brock, W. A., Swartzendruber, D. E., and Grdina, D. J. Kinetic Heterogeneity in Density-separated Murine Fibrosarcoma Subpopulations, 4999
- Brockman, R. W. See Chang, Brockman, and Bennett, 3033; White, Shaddix, Brockman, and Bennett, 2260
- Brodie, A. M. H. Overview of Recent Development of Aromatase Inhibitors, 3312\*\*
- Brodie, A. M. H., Garrett, W. M., Hendrickson, J. R., and Tsai-Morris, C.-H. Effects of Aromatase Inhibitor 4-Hydroxyandrostenedione and Other Compounds in the 7,12-Dimethylbenz(a)-anthracene-induced Breast Carcinoma Model, 3360\*\*
- Bromer, R. H., Mitchell, J. B., and Soares, N. Response of Human Hematopoietic Precursor Cells (CFUc) to Hyperthermia and Radiation, 1261
- Brooks, S. C. See Hansen and Brooks, 1967
- Brothman, A. R., Davis, T. P., Duffy, J. J., and Lindell, T. J. Development of an Antibody to Actinomycin D and Its Application for the Detection of Serum Levels by Radioimmunoassay, 1184
- Brouwer, J., Fichtinger-Schepman, A. M. J., van de Putte, P., and Reedijk, J. Influence of Temperature on Platinum Binding to DNA, Cell Killing, and Mutation Induction in *Escherichia coli* K-12 Cells Treated with *cis*-Diamminedichloroplatinum(II), 2416
- Brown, A. E. See Poste, Doll, Brown, Tzeng, and Zeidman, 2770
- Brown, E. H., and Basilico, C. Induction of Sister Chromatid Exchange by Polyoma Large Viral Tumor Antigen in Transformed Rat Fibroblasts, 1909
- Brown, J. M., Shoffner, P. C., Tondreau, S. P., Matthews, E. J., Terry, W. D., and Rosenberg, S. A. Cytotoxic Antibody Reactivity in Sera of Melanoma Patients against Allogeneic and Autologous Cultured Tumor Cells and Fibroblasts, 2216
- Brown, L. See Inoue, Brown, Ravindranath, and Ottenbreit, 2906
- Brown, M. T. See Barrett, Brown, and Siskin, 3098
- Bruce, S. A. See Nakano, Bruce, Ueo, and Ts'o, 3132
- Brueggemeier, R. W., Snider, C. E., and Counsell, R. E. Substituted C<sub>19</sub> Steroid Analogs as Inhibitors of Aromatase, 3334\*\*
- Bugh, M. See Autrup, Grafstrom, Bugh, Lechner, Haugen, Trump, and Harris, 934
- Brun, G. See Malavalle, Brun, Kolar, and Bartsch, 1446
- Bruning, H. W. See Derks, Hofmans, Bruning, and Rood, 681
- Brunke, K. J., and Leboy, P. S. An Unusual Transfer RNA [Guanine-2]-Methyltransferase from Transplantable Rat Mammary Tumors, 4979
- Bruno, S., Grindey, G., Zakrzewski, S., Priore, R., Kinahan, J., Moayeri, H., Ledesma, E., Mittelman, A., and Creavan, P. Phase I Study of High-Dose Methotrexate with Thymidine and Low Dose Leucovorin, 4824
- Bryan, G. T. See Matsushina, Takano, Ertürk, and Bryan, 3587; Swaminathan, Lower, and Bryan, 4479
- Bryant, J. See Barranco, May, Boerwinkle, Nichols, Hokanson, Schumann, Göhde, Bryant, and Guseman, 2894
- Bubbers, J. E. See Messing, Fahey, deKernion, Bhuta, and Bubbers, 2392
- Bucana, C. See Poste, Bucana, Raz, Bugelski, Kirsh, and Fidler, 1412
- Bücher, T. See Rabes, Bücher, Hartmann, Linke, and Dünnwald, 3220
- Büchsel, R., and Reutter, W. Plasma Membrane Changes of Liver and Morris Hepatoma Induced by Retinol in Rats, 2450
- Buchwald, M. See Ishida and Buchwald, 4000
- Buckley, M. T. See Hunt, Buckley, Onnink, Rolfe, and Laishes, 227
- Budd, T. W. See Yoo, Kuo, Spector, Denning, Floyd, Whiteaker, Kim, Kim, Abbas, and Budd, 3596
- Budinger, J. M. See Teller, Stock, Bowie, Chou, and Budinger, 4408
- Bugelski, P. See Fidler, Barnes, Fogler, Kirsh, Bugelski, and Poste, 496; Poste, Bucana, Raz, Bugelski, Kirsh, and Fidler, 1412
- Buhler, D. R., Unlu, F., Thakker, D. R., Slaga, T. J., Newman, M. S., Levin, W., Conney, A. H., and Jerina, D. M. Metabolism and Tumorigenicity of 7-, 8-, 9-, and 10-Fluorobenzo(a)pyrenes, 4779, Communication
- Bullard, G. See Zakrzewski, Pavelic, Greco, Bullard, Creaven, and Mihich, 2177
- Burchenal, J. H. See Chou, Burchenal, Schmid, Braun, Su, Watanabe, Fox, and Philips, 3957; Kelsen, Scher, Alcock, Leyland-Jones, Donner,



- Williams, Greene, Burchenal, Tan, Philips, and Young, 4831
- Burchenal, J. H., Chou, T.-C., Lokys, L., Smith, R. S., Watanabe, K. A., Su, T.-L., and Fox, J. J.** Activity of 2-Fluoro-5-methylarabinofuranosyluracil against Mouse Leukemias Sensitive to and Resistant to 1- $\beta$ -D-Arabinofuranosylcytosine, 2598
- Burchiel, S. W., Martin, J. C., Imai, K., Ferrone, S., and Warner, N. L.** Heterogeneity of HLA-A, B, Ia-like, and Melanoma-associated Antigen Expression by Human Melanoma Cell Lines Analyzed with Monoclonal Antibodies and Flow Cytometry, 4110
- Burger, D. R.** See Tong, Vandenbark, Kraybill, Vetto, and Burger, 2949
- Burk, M. W.** See Iwaki, Kasai, Terasaki, Bernoco, Park, Cicciarelli, Heintz, Saxton, Burk, and Morton, 409
- Bürki, H.** See Laissue, Bürki, and Berchtold, 1125
- Burns, C. P.** See Guffy, Rosenberger, Simon, and Burns, 3625; Simon, Burns, and Spector, 2715
- Burns, R.** See Berns, Dahlmann, Johnson, Burns, Sperling, Gultinan, Siemens, Walter, Wright, Hammer-Wilson, and Wile, 2325
- Burt, M. E.** See Arbeit, Burt, Rubinstein, Gorschoth, and Brennan, 4936
- Buzdar, A. U., Powell, K. C., and Blumenschein, G. R.** Aminoglutethimide after Tamoxifen Therapy in Advanced Breast Cancer: M. D. Anderson Hospital Experience, 3448\*\*
- Buzzi, S.** Diptheria Toxin Treatment of Human Advanced Cancer, 2054
- Byczkowski, J. Z., Zychlinski, L., and Porter, C. W.** Potentiation of the Antimicrobial and Antiproliferative Effects of Bisguanyldihydropyridines by Phenethylbiguanide, 3592
- Byfield, J. E.** See Calabro-Jones, Byfield, Ward, and Sharp, 4413
- Bystryn, J.-C.** See Bector and Bystryn, 2121; Heaney-Kieras and Bystryn, 2310
- Bystryn, J.-C., and Perlestein, J.** Autocatabolism of Surface Macromolecules Shed by Human Melanoma Cells, 2232
- C**
- Cadman, E.** See Benz, Tillis, Tattelman, and Cadman, 2081; Grant and Cadman, 3550; Grant, Rauscher, and Cadman, 4007; Grant, Rauscher, Margolin, and Cadman, 519
- Caignard, A.** See Martin, Caignard, Olsson, Jeanin, and Leclerc, 3851
- Cailla, H. L.** See Scavennec, Maraninchi, Gastaut, Carcassonne, and Cailla, 1326
- Calabresi, P.** See Dexter, Matook, Meitner, Bogaars, Jolly, Turner, and Calabresi, 2705; Dexter, Spremulli, Matook, Diamond, and Calabresi, 5018; Leith, Dexter, DeWynagaert, Zeman, Chu, Calabresi, and Glicksman, 2556; Leith, Gaskins, Dexter, Calabresi, and Glicksman, 30; Wiemann, Cummings, Kaplan, Spremulli, Doolittle, and Calabresi, 3896
- Calabro-Jones, P. M., Byfield, J. E., Ward, J. F., and Sharp, T. R.** Time-Dose Relationships for 5-Fluorouracil Cytotoxicity against Human Epithelial Cancer Cells *in Vitro*, 4413
- Caldwell, J. A.** See McCormick, Mehta, Thompson, Dinger, Caldwell, and Moon, 508
- Caldwell, J. E.** See Pierce, Pantazis, Caldwell, and Wells, 1082
- Calvelli, T. A.** See Silagi and Calvelli, 2562
- Cameron, R. G., Imaida, K., Tsuda, H., and Ito, N.** Promotive Effects of Steroids and Bile Acids on Hepatocarcinogenesis Initiated by Diethylnitrosamine, 2426
- Camiolo, S. M.** See Evers, Patel, Madeja, Schneider, Hobika, Camiolo, and Markus, 219
- Campbell, C. L.** See Steinberg, Campbell, Bleyer, and Hillman, 1279
- Campbell, E. D.** See Carter, Wampler, Stablein, and Campbell, 2963
- Campbell, H. A., Pitot, H. C., Potter, V. R., and Laishes, B. A.** Application of Quantitative Stereology to the Evaluation of Enzyme-altered Foci in Rat Liver, 465
- Campbell, T. C.** See Appleton, Goetchi, and Campbell, 3659; Prince and Campbell, 5053
- Camus, A.-M., Friesen, M., Croisy, A., and Bartsch, H.** Species-specific Activation of Phenacetin into Bacterial Mutagens by Hamster Liver Enzymes and Identification of N-Hydroxyphenacetin O-Glucuronide as a Promutagen in the Urine, 3201
- Cangir, A.** See van Eys, Cangir, Carter, and Coody, 713\*
- Cantor, K. P.** See Hartge, Hoover, Altman, Austin, Cantor, Child, Key, Mason, Marrett, Myers, Narayana, Silverman, Sullivan, Swanson, Thomas, and West, 4784
- Capizzi, R. L.** See Keefe, Capizzi, and Rudnick, 1641; Schwartz, Morgenstern, and Capizzi, 2191
- Caprioli, R.** See Stewart, Leavens, Maor, Feun, Luna, Bonura, Caprioli, Loo, and Benjamin, 2474
- Carcassonne, Y.** See Scavennec, Maraninchi, Gastaut, Carcassonne, and Cailla, 1326
- Carlström, K.** See Pousette, Carlström, Sköldfors, Wilking, and Theve, 633
- Carson, D. A., and Wasson, D. B.** Characterization of an Adenosine 5'-Triphosphate- and Deoxyadenosine 5'-Triphosphate-activated Nucleotidase from Human Malignant Lymphocytes, 4321
- Carter, G. L.** See Sato, Carter, Bacon, and Cory, 4353
- Carter, P.** See van Eys, Cangir, Carter, and Coody, 713\*
- Carter, W. H., Jr., Wampler, G. L., Stablein, D. M., and Campbell, E. D.** Drug Activity and Therapeutic Synergism in Cancer Treatment, 2963
- Casagrande, J. T.** See Henderson, Ross, Pike, and Casagrande, 3232
- Cashmore, A. R.** See Weir, Cashmore, Dreyer, Graham, Hsiao, Moroson, Sawicki, and Bertino, 1696
- Caspersson, T.** See Auer, Ono, Nasiell, Caspersson, Kato, Konaka, and Hayata, 4241
- Cass, C. E.** See Harley, Paterson, and Cass, 1289
- Cass, C. E., Selner, M., Ferguson, P. J., and Phillips, J. R.** Effects of 2'-Deoxyadenosine, 9- $\beta$ -D-Arabinofuranosyladenine and Related Compounds on S-Adenosyl-L-homocysteine Hydrolase Activity in Synchronous and Asynchronous Cultured Cells, 4991
- Cathers, L. E.** See Gould, Cathers, and Moore, 4619
- Catino, D. M.** See Berger, Catino, and Vietti, 4382
- Central Pennsylvania Oncology Group** See Harvey, Lipton, White, Santen, Boucher, Shafik, Dixon, and Members of The Central Pennsylvania Oncology Group, 3451\*\*
- Cha, Y.-N., and Heine, H. S.** Comparative Effects of Dietary Administration of 2(3)-tert-Butyl-4-hydroxyanisole and 3,5-di-tert-Butyl-4-hydroxytoluene on Several Hepatic Enzyme Activities in Mice and Rats, 2609
- Chabner, B.** See Riccardi, Chabner, Glaubiger, Wood, and Poplack, 1736
- Chadwick, M., Silveira, D. M., MacGregor, J. A., Branfman, A. R., Liss, R. H., and Yesair, D. W.** Comparative Physiological Disposition of N-(Phosphonacetyl)-L-aspartate in Several Animal Species after Intravenous and Oral Administration, 627
- Chakrabarty, P. K., Chattopadhyay, S. K., and Schneider, W. C.** Molecular Basis for Increased Synthesis of Albumin in Rat Liver after Thioacetamide Administration, 421
- Chalet, M.** See Lowe, Connor, Breeding, and Chalet, 3941
- Chambers, A. F., Shafir, R., and Ling, V.** A Model System for Studying Metastasis Using the Embryonic Chick, 4018
- Chan, K. K.** See Chlebowski, Gota, Chan, Weiner, Block, and Bateman, 4827
- Chan, K. W.** See Tan, Hancock, Steinhilber, Steinhilber, Sorell, Chan, Mondora, and Miller, 1579
- Chang, B. K., and Gutman, R.** Chemotherapy of Pancreatic Adenocarcinoma: Initial Report on Two Transplantable Models in the Syrian Hamster, 2666
- Chang, C.-H., Brockman, R. W., and Bennett, L. L., Jr.** Purification and Some Properties of a Deoxyribonucleoside Kinase from L1210 Cells, 3033
- Chang, D. C.** See Beall, Brinkley, Chang, and Hazlewood, 4124
- Chang, F.-F.** See Shively, Spayth, Chang, Metter, Klein, Present, and Todd, 2506
- Chang, R. L.** See Wood, Chang, Levin, Yagi, Tada, Vyas, Jerina, and Conney, 2972
- Chang, R. L., Levin, W., Wood, A. W., Lehr, R. E., Kumar, S., Yagi, H., Jerina, D. M., and Conney, A. H.** Tumorigenicity of Bay-Region Diol-Epoxides and Other Benzo-Ring Derivatives of Dibenz(a,h)pyrene and Dibenz(a,i)pyrene on Mouse Skin and in Newborn Mice, 25
- Chang, S. E., Keen, J., Lane, E. B., and Taylor-Papadimitriou, J.** Establishment and Characterization of SV40-transformed Human Breast Epithelial Cell Lines, 2040
- Chang-xue, Z.** See Wang, Heacock, Onikul, Chang-xue, Young, and Mannick, 416
- Chapman, J. D.** See Jarvis, Chapman, Ngan-Lee, Rutledge, Barr and Paterson, 4358
- Char, D.** See Cleaver, Char, Charles and Rand, 1343
- Charles, W. C.** See Cleaver, Char, Charles, and Rand, 1343
- Chatterjee, S. K.** See Bhattacharya, Chatterjee, Barlow, and Fuji, 1650
- Chattopadhyay, S. K.** See Chakrabarty, Chattopadhyay, and Schneider, 421
- Chawla, R. K.** See Richmond, Lawson, Nixon, Stevens, and Chawla, 3175
- Check, I.** See Kaneko, Rowley, Variakojis, Chilcote, Check, and Sakurai, 2918
- Chee, D. O., Yonemoto, R. H., Leong, S. P. L., Richards, G. F., Smith, V. R., Klotz, J. L., Goto, R. M., Gascon, R. L., and Drushella, M. M.** Mouse Monoclonal Antibody to a Melanoma-Carcinoma-associated Antigen Synthesized by a Human Melanoma Cell Line Propagated in Serum-free Medium, 3142
- Chen, H. S. G.** See Goodman, Einspahr, Alberts, Davis, Leigh, Chen, and Meyskens, 2087
- Chen, I.** See Shibuya, Chen, Howatson, and Mak, 2722
- Chen, L. B.** See Bernal and Chen, 5106; Summerhayes and Chen, 4098
- Chen, P.** See Ramsay, Chen, Imray, Kidson, Lavin, and Hockey, 2909
- Cheng, C. C.** See Kimler and Cheng, 3631; Kimler, Henderson, Mansfield, Svoboda, and Cheng, 2656
- Cheng, M., and Conner, M. K.** Comparison of Sister Chromatid Exchange Induction and Known Carcinogenic Activities of Vinyl and Allyl Carbamates, 2165
- Cheret, A.-M.** See Labois, Augeron, Couturier-Turpin, Gaspach, Cheret, and Potet, 1541
- Chetsanga, C. J., Polidori, G., and Mainwaring, M.** Analysis and Excision of Ring-opened Phosphoramidate Mustard-Deoxyguanine Adducts in DNA, 2616
- Chiang, T.** See Deodhar, James, Chiang, Edinger, and Barna, 5084
- Chilcote, R. R.** See Kaneko, Rowley, Variakojis, Chilcote, Check, and Sakurai, 2918
- Child, M. A.** See Hartge, Hoover, Altman, Austin, Cantor, Child, Key, Mason, Marrett, Myers, Narayana, Silverman, Sullivan, Swanson, Thomas, and West, 4784
- Children's Cancer Study Group** See Nesbit,

- Sather, Robison, Donaldson, Littman, Ortega, and Hammond, 674
- Chilvers, C.** See Coombes, Chilvers, Dowsett, Gazet, Ford, Bettelheim, Gordon, Smith, Zava, Powles, and Investigators of the Collaborative Breast Cancer Project, 3415\*\*
- Chirigos, M. A.** See Bartocci, Read, Welker, Schlick, Papademetriou, and Chirigos, 3514
- Chisaka, N.** See Yokoyama, Kaneko, Dempo, Chisaka, Mori, and Onoe, 4158
- Chiu, H.** See Lee, Kelley, Chiu, and Stebbing, 1312
- Chlebowski, R. T.** See Heber, Chlebowski, Ishibashi, Herold, and Block, 4815
- Chlebowski, R. T., Gota, C. H., Chan, K. K., Weiner, J. M., Block, J. B., and Bateman, J. R.** Clinical and Pharmacokinetic Effects of Combined Warfarin and 5-Fluorouracil in Advanced Colon Cancer, 4827
- Chlebowski, R. T., and Heber, D.** Hypogonadism in Male Patients with Metastatic Cancer Prior to Chemotherapy, 2495
- Chmiel, J. S.** See Babaya, Miyata, Chmiel, and Oyasu, 15
- Chou, T.-C.** See Burchenal, Chou, Lokys, Smith, Watanabe, Su, and Fox, 2598; Teller, Stock, Bowie, Chou, and Budinger, 4408
- Chou, T.-C., Burchenal, J. H., Schmid, F. A., Braun, T. J., Su, T.-L., Watanabe, K. A., Fox, J. J., and Philips, F. S.** Biochemical Effects of 2'-Fluoro-5-methyl-1- $\beta$ -D-arabinofuranosyluracil and 2'-Fluoro-5-iodo-1- $\beta$ -D-arabinofuranosylcytosine in Mouse Leukemic Cells Sensitive and Resistant to 1- $\beta$ -D-Arabinofuranosylcytosine, 3957
- Chouroulinkov, I.** See Sweeney, Pot-Deprun, Poupon, and Chouroulinkov, 3776
- Chrétien, P.** See Landry, Bernier, Chrétien, Nicole, Tanguay, and Marceau, 2457
- Chu, A. M., and Fowler, J. F.** Effect of X-Rays and Cyclophosphamide on Solid Tumors and Naturally Occurring Metastases in Mice, 1943
- Chu, M. Y.** See Leith, Dexter, DeWyngaert, Zeman, Chu, Calabresi, and Glicksman, 2556
- Chu, T. M.** See Frankel, Rouse, Wang, Chu, and Herzenberg, 3714
- Chuan, J.** See Sparnins, Chuan, and Wattenberg, 1205
- Cianciulli, H. D.** See Michalopoulos, Cianciulli, Novotny, Kilgerman, Strom, and Jirtle, 4673
- Ciccarelli, R. B., and Wetterhahn, K. E.** Nickel Distribution and DNA Lesions Induced in Rat Tissues by the Carcinogen Nickel Carbonate, 3544
- Cicciarelli, J.** See Iwaki, Kasai, Terasaki, Bernoco, Park, Cicciarelli, Heintz, Saxton, Burk, and Morton, 409
- Cimberle, M. R.** See Parodi, Pala, Russo, Zunino, Balbi, Albini, Valerio, Cimberle, and Santi, 2277
- Ciocca, D. R., Adams, D. J., Bjercke, R. J., Edwards, D. P., and McGuire, W. L.** Immunohistochemical Detection of an Estrogen-regulated Protein by Monoclonal Antibodies, 4256, *Communication*
- Cirtain, M. C.** See Beck and Cirtain, 184
- Citarella, R. V., Wallace, R. E., Murdock, K. C., Angier, R. B., Durr, F. E., and Forbes, M.** Activity of a Novel Anthracenyl Bishydrozone, 9,10-Anthracenedicarboxaldehyde Bis[(4,5-dihydro-1H-imidazol-2-yl)hydrazonol] Dihydrochloride, against Experimental Tumors in Mice, 440
- Clafflin, A. J.** See Kozlovskis, Clafflin, Fletcher, McKinney, and Rubin, 2748; Pollack, Irvin, Block, Lipton, Stover, and Clafflin, 2184
- Clark, A. F.** See Bird, Masters, Sterns, and Clark, 4797
- Clark, J. H.** See Syne, Markaverich, Clark, and Panko, 4443, 4449
- Clawson, G. A., and Smuckler, E. A.** Increased Amounts of Double-Stranded RNA in the Cytoplasm of Rat Liver following Treatment with Carcinogens, 3228, *Communication*
- Cleaver, J. E.** Inactivation of Ultraviolet Repair in Normal and Xeroderma Pigmentosum Cells by Methyl Methanesulfonate, 860
- Cleaver, J. E., Char, D., Charles, W. C., and Rand, N.** Repair and Replication of DNA in Hereditary (Bilateral) Retinoblastoma Cells after X-Irradiation, 1343
- Coates, A. S.** See Kaye, Woods, Fox, Coates, and Tattersall, 3445\*\*
- Coates, T. D.** See Rickard, Baehner, Coates, Westman, Provisor, and Grosfeld, 766\*
- Coetzee, M. L., Short, J., Klein, K., and Ove, P.** Correlation of Circulating Levels of a Serum Protein with Triiodothyronine Levels and Hepatoma Growth, 155
- Coezy, E., Borgna, J.-L., and Rochefort, H.** Tamoxifen and Metabolites in MCF<sub>7</sub> Cells: Correlation between Binding to Estrogen Receptor and Inhibition of Cell Growth, 317
- Coffey, D. S.** See Feinberg and Coffey, 3252; Isaacs, Wake, Coffey, and Sandberg, 2353
- Coffey, R. G.** See Hadden, Sadlik, Coffey, and Hadden, 3064
- Cohen, B. I., Raicht, R. F., and Fazzini, E.** Reduction of N-Methyl-N-nitrosourea-induced Colon Tumors in the Rat by Cholesterol, 5050
- Cohen, M. C.** Characterization of the Lymphokine Responsible for Migration-inhibitory Activity against Tumor Cells, 2135
- Cohen, S. M., Murasaki, G., Fukushima, S., and Greenfield, R. E.** Effect of Regenerative Hyperplasia on the Urinary Bladder: Carcinogenicity of Sodium Saccharin and N-[4-(5-Nitro-2-furyl)-2-thiazolyl]formamide, 65
- Colburn, N. H., Gindhart, T. D., Hegamy, G. A., Blumberg, P. M., Delclos, K. B., Magun, B. E., and Lockyer, J.** Phorbol Diester and Epidermal Growth Factor Receptors in 12-O-Tetradecanoylphorbol-13-acetate-resistant and -sensitive Mouse Epidermal Cells, 3093
- Cole, C.** See Forbes, Davies, Urbach, Berger, and Cole, 2796
- Coleman, P. S.** See Kaplan, Morris, and Coleman, 4399
- Collaborative Breast Cancer Investigators** See Coombes, Chilvers, Dowsett, Gazet, Ford, Bettelheim, Gordon, Smith, Zava, Powles, and Investigators of the Collaborative Breast Cancer Project, 3415\*\*
- Colofiore, J. R., Ara, G., Berry, D., and Belli, J. A.** Enhanced Survival of Adriamycin-treated Chinese Hamster Cells by 2-Deoxy-D-glucose and 2,4-Dinitrophenol, 3934
- Colston, K., Colston, M. J., Fieldsteel, A. H., and Feldman, D.** 1,25-Dihydroxyvitamin D<sub>3</sub> Receptors in Human Epithelial Cancer Cell Lines, 856
- Colston, M. J.** See Colston, Colston, Fieldsteel, and Feldman, 856
- Comis, R. L.** See Galvan, Evans, Comis, Gottlieb, Gyorkey, Lane, Prestayko, and Crooke, 1562
- Comis, R. L., Issell, B. F., Pittman, K., Ginsberg, S. J., Rudolph, A., Aust, J. C., DiFino, S. M., Tinsley, R. W., Polesz, B. J., and Crooke, S. T.** A Phase I and Clinical Pharmacology Study of Intravenously Administered Carminomycin in Cancer Patients in the United States, 2944
- Conner, M. K.** See Biegel, Boggs, and Conner, 2813; Biegel, Conner, and Boggs, 2816; Cheng, and Conner, 2165
- Conney, A. H.** Induction of Microsomal Enzymes by Foreign Chemicals and Carcinogenesis by Polycyclic Aromatic Hydrocarbons: G. H. A. Clowes Memorial Lecture, 4875. See also Buhler, Unlu, Thakker, Slaga, Newman, Levin, Conney, and Jerina, 4779; Chang, Levin, Wood, Lehr, Kumar, Yagi, Jerina, and Conney, 25; Wood, Chang, Levin, Yagi, Tada, Vyas, Jerina, and Conney, 2972
- Connolly, K. M., Armstrong, R. D., Diasio, R. B., and Kaplan, A. M.** Host Interactions in the Effects of 5-Fluorouracil on Ehrlich Ascites Tumor Cells, 4927
- Connolly, K. M., and Kaplan, A. M.** Generation of Tumor Cells with Reduced DNA Content as a Result of Macrophage Tumoricidal Activity, 2198
- Connor, M. J.** See Lowe, Connor, Breeding, and Chalet, 3941
- Conrad, E. A.** See Verma, Conrad, and Boutwell, 3519
- Coody, D.** See van Eys, Cangir, Carter, and Coody, 713\*
- Cook, J. L.** See Lewis and Cook, 939
- Coombes, R. C.** See Powles, Gordon, and Coombes, 3458\*\*
- Coombes, R. C., Chilvers, C., Dowsett, M., Gazet, J.-C., Ford, H. T., Bettelheim, R., Gordon, C., Smith, I. E., Zava, D., Powles, T. J., and Investigators of the Collaborative Breast Cancer Project** Adjuvant Aminoglutethimide Therapy for Postmenopausal Patients with Primary Breast Cancer: Progress Report, 3415\*\*
- Cooper, C. S.** See Neidle, Subbiah, Kuroda, and Cooper, 3766
- Cooper, D. P., O'Connor, P. J., and Margison, G. P.** Effect of Acute Doses of 2-Acetylaminofluorene on the Capacity of Rat Liver to Repair Methylated Purines in DNA *In Vivo* and *In Vitro*, 4203
- Cooper, I. A.** See Murphy and Cooper, 3887; Woodcock, Adams, and Cooper, 4744
- Cooper, R. A.** See Cossu, Kuo, Pessano, Warren, and Cooper, 484
- Corberand, J., Bencheikroun, S., Nguyen, F., Laharrague, P., and Pris, J.** Polymorphonuclear Functions in Hodgkin's Disease Patients at Diagnosis, in Remission, and in Relapse, 1595
- Corbett, T. H.** See Spears, Shahinian, Moran, Heidelberg, and Corbett, 450
- Corbett, T. H., Leopold, W. R., Dykes, D. J., Roberts, B. J., Griswold, D. P., Jr., and Schabel, F. M., Jr.** Toxicity and Anticancer Activity of a New Triazine Antifolate (NSC 127755), 1707
- Corcoran, J. J.** See Rubin, Quillen, Corcoran, Ganapathi, and Krishan, 1384
- Cordes, R. S.** See Schilsky, Kelley, Ihde, Howser, Cordes, and Young, 1582
- Cordier, G.** See Danel, Cordier, Revillard, and Saez, 4701
- Corkery, J., Leonard, R. C. F., Henderson, I. C., Gelman, R. S., Hourihan, J., Ascoli, D. M., and Sallanick, H. A.** Tamoxifen and Aminoglutethimide in Advanced Breast Cancer, 3409\*\*
- Cornaglia-Ferraris, P.** See Monaco, Vignetti, Lancieri, Cornaglia-Ferraris, Lambertenghi-Deliliers, and Revoltella, 4182
- Cory, J. G.** See Sato, Carter, Bacon, and Cory, 4353
- Coss, R. A., Dewey, W. C., and Bamburg, J. R.** Effects of Hyperthermia on Dividing Chinese Hamster Ovary Cells and on Microtubules *In Vitro*, 1059
- Cossman, J.** See Fisher, Silver, Vanhaelen, Jaffe, and Cossman, 2465
- Cossu, G., Kuo, A. L., Pessano, S., Warren, L., and Cooper, R. A.** Decreased Synthesis of High-Molecular-Weight Glycopeptides in Human Promyelocytic Leukemic Cells (HL-60) during Phorbol Ester-induced Macrophage Differentiation, 484
- Costa, M.** See Evans, Davies, and Costa, 2729
- Costa, M., Heck, J. D., and Robison, S. H.** Selective Phagocytosis of Crystalline Metal Sulfide Particles and DNA Strand Breaks as a Mechanism for the Induction of Cellular Transformation, 2757
- Costanzi, J. J.** See Barranco, Townsend, Costanzi, May, Baltz, O'Quinn, Leipzig, Hokanson, Gusman, and Boerwinkle, 2899
- Costlow, M. E., Pui, C.-H., and Dahl, G. V.** Glucocorticoid Receptors in Childhood Acute Lymphocytic Leukemia, 4801
- Cottrell, R. C.** See Phillips, Bex, Lake, Cottrell, and Gangolli, 3761
- Counsell, R. E.** See Brueggemeier, Snider, and



- Counsell, 3334\*\*
- Courtney, M. G., Schmidt, L. J., and Getz, M. J.** Organization and Expression of Endogenous Virus-like (VL30) DNA Sequences in Nontransformed and Chemically Transformed Mouse Embryo Cells in Culture, 569
- Cousins, R. J.** See Giles and Cousins, 2
- Couturier-Turpin, M.-H.** See Laboisse, Augeron, Couturier-Turpin, Gespach, Cheret, and Potet, 1541
- Covey, D. F.** See MacIndoe, Woods, Etre, and Covey, 3378\*\*
- Covey, D. F., and Hood, W. F.** A New Hypothesis Based on Suicide Substrate Inhibitor Studies for the Mechanism of Action of Aromatase, 3327\*\*
- Cox, B. A.** See Kulkarni, Cox, and Yielding, 2792
- Cox, C.** See Wells, Worgul, Samojlik, Boucher, Lipton, Harvey, White, Smart, Cox, and Santen, 3454\*\*
- Crampton, S. L.** See Bhuyan, Newell, Crampton, and Von Hoff, 3532
- Creaven, P. J.** See Au, Rustum, Ledesma, Mittelman, and Creaven, 2930; Bruno, Grindey, Zakrzewski, Priore, Kinahan, Moayeri, Ledesma, Mittelman, and Creaven, 4824; Zakrzewski, Pavelic, Greco, Bullard, Creaven, and Mihich, 2177
- Crepaldi, T.** See Pedrali-Noy, Belvedere, Crepaldi, Focher, and Spadari, 3810
- Cress, A. E., Culver, P. S., Moon, T. E., and Gerner, E. W.** Correlation between Amounts of Cellular Membrane Components and Sensitivity to Hyperthermia in a Variety of Mammalian Cell Lines in Culture, 1716
- Croisy, A.** See Camus, Friesen, Croisy, and Bartsch, 3201
- Cronin, W. J., Dorsett, B. H., and Joachim, H. L.** Isolation of Lung Carcinoma-associated Antibodies from Immune Complexes and Production of Heterologous Antisera, 292
- Crooke, S. T.** See Comis, Issell, Pittman, Ginsberg, Rudolph, Aust, DiFino, Tinsley, Polesz, and Crooke, 2944; Galvan, Evans, Comis, Gottlieb, Gyorkey, Lane, Prestayko, and Crooke, 1562; Galvan, Evans, Huang, Prestayko, Wu, and Crooke, 1555; Mirabelli, Beattie, Huang, Prestayko, and Crooke, 1399; Mirabelli, Ting, Huang, Mong, and Crooke, 2779; Seiber, Osieka, Schmidt, Achterath, and Crooke, 4719
- Culver, P. S.** See Cress, Culver, Moon, and Gerner, 1716
- Cummings, F. J.** See Wiemann, Cummings, Kaplan, Spremulli, Doolittle, and Calabresi, 3896
- Curphey, T. J.** See Longnecker, Curphey, Kuhlmann, and Roebuck, 19; Zurlo, Curphey, Hiley, and Longnecker, 1286
- Custer, R. P.** See Schaefer, Custer, and Sorof, 3682
- Cutroneo, K. R.** See Sterling, DiPetrillo, Cutroneo, and Prestayko, 405; Sterling, DiPetrillo, Kotch, and Cutroneo, 3502

## D

- da Cunha, M. F.** See Meistrich, Finch, da Cunha, Hacker, and Au, 122
- Dagan, A.** See Gabizon, Dagan, Goren, Barenholz, and Fuks, 4734
- Dahl, G. V.** See Costlow, Pui, and Dahl, 4801
- Dahlman, A.** See Berns, Dahlman, Johnson, Burns, Sperling, Gultinan, Siemens, Walter, Wright, Hammer-Wilson, and Wile, 2325
- Dalbrow, D. G., and Jaenke, R. S.** *In Vivo* RNA Synthesis in the Hearts of Adriamycin-treated Rats, 79
- Danel, L., Cordier, G., Revillard, J.-P., and Saez, S.** Presence of Estrogen Binding Sites and Growth-stimulating Effect of Estradiol in the Human Myelogenous Cell Line HL60, page 4701
- Danielson, K. G.** See Angello, Danielson, Anderson, and Hosick, 2207
- Danley, J. M.** See Blackburn, Schnabel, Danley, Hogue-Angeletti, and Sorof, 4664
- Danzl, T. J.** See Robison, Arthur, Ball, Danzl, and Nesbit, 4289
- Dao, T. L.** Estrogen Synthesis in Human Breast Tumor and Its Inhibition by Testolactone and Bromoandrostenedione, 3338\*\*
- Dao, T. L., Sinha, D. K., Nemoto, T., and Patel, J.** Effect of Estrogen and Progesterone on Cellular Replication of Human Breast Tumors, 359
- Darzynkiewicz, Z.** See Klein, Melamed, Whitmore, Herr, Sogani, and Darzynkiewicz, 1094
- Darzynkiewicz, Z., Traganos, F., Staiano-Coico, L., Kapuscinski, J., and Melamed, M. R.** Interactions of Rhodamine 123 with Living Cells Studied by Flow Cytometry, 799
- Das, S. K., Lau, C. C., and Pardee, A. B.** Abolition by Cycloheximide of Caffeine Enhanced Lethality of Alkylating Agents in Hamster Cells, 4499
- Das Gupta, T. K.** See Stanberry, Das Gupta, and Beattie, 2238
- Dauchy, R. T.** See Sauer, Stayman, and Dauchy, 4090
- Davies, P. J. A.** See Evans, Davies, and Costa, 2729
- Davies, R. E.** See Forbes, Davies, Urbach, Berger, and Cole, 2796
- Davis, H. L.** See Earhart, Tutsch, Koeller, Rodriguez, Robins, Vogel, Davis, and Tormey, 5255
- Davis, M. R.** See Zwiebel, Davis, Kohn, Salomon, and Kidwell, 5117
- Davis, T. P.** See Brothman, Davis, Duffy, and Lindell, 1184; Goodman, Einspahr, Alberts, Davis, Leigh, Chen, and Meyskens, 2087
- Dawson, G.** See Lockney, Golomb, and Dawson, 3724
- Day, N. K.** See Good, West, Day, Dong, and Fernandes, 737\*
- Dayton, B. D.** See Li, Swenson, Schpok, Kuentzel, Dayton, and Krueger, 999; Swenson, Li, Hurley, Rokem, Petzold, Dayton, Wallace, Lin, and Krueger, 2821
- Dean, P. D. G.** See Tidd, Gibson, and Dean, 3769
- Debons-Guillemin, M.-C., Launay, J.-M., Roseto, A., and Périès, J.** Serotonin and Histamine Production by Human Carcinoid Cells in Cultures, 1513
- Deen, D. F.** See Oredsson, Deen, and Marton, 1296; Sano, Deen, and Hoshino, 1223; Weinikam and Deen, 1008
- Dees, J. H., Masters, B. S. S., Muller-Eberhard, U., and Johnson, E. F.** Effect of 2,3,7,8-Tetra-chlorodibenzo-p-dioxin and Phenobarbital on the Occurrence and Distribution of Four Cytochrome P-450 Isozymes in Rabbit Kidney, Lung, and Liver, 1423
- De Fazio, S. R., Gozzo, J. J., and Monaco, A. P.** Tumor-associated Antigens in the Urine of Patients with Bladder Cancer, 2913
- Defendi, V.** See Mufson, Steinberg, and Defendi, 4600
- Degen, G. H.** See McLachlan, Wong, Degen, and Barrett, 3040
- Degen, G. H., Eling, T. E., and McLachlan, J. A.** Oxidative Metabolism of Diethylstilbestrol by Prostaglandin Synthetase, 919
- Deisseroth, A.** See Holohan, Phillips, Bowles, and Deisseroth, 3663
- deKernion, J. B.** See Messing, Fahey, deKernion, Bhuta, and Bubbers, 2392
- Delclos, K. B.** See Colburn, Gindhart, Hegamy, Blumberg, Delclos, Magun, and Lockyer, 3093
- Delclos, K. B., and Blumberg, P. M.** Identification of Ascorbic Acid as the Heat-stable Factor from Brain which Inactivates the Phorbol Ester Receptor, 1227
- Delellis, R. A.** See Rudders, Ahl, Delellis, Bernstein, and Begg, 349
- Delescluse, C., Fürstenberger, G., Marks, F., and Prunieras, M.** Effects of Phorbol Esters on Basal Epidermal Cells Derived from Ear Skin of Adult Guinea Pigs, 1975
- DeMars, R.** See Thomassen and DeMars, 4054
- Demetrakopoulos, G. E., and Brennan, M. F.** Tumoricidal Potential of Nutritional Manipulations, 756\*
- Dempo, K.** See Yokoyama, Kaneko, Dempo, Chisaka, Mori, and Onoe, 4158
- Denning, G. M.** See Yoo, Kuo, Spector, Denning, Floyd, Whiteaker, Kim, Kim, Abbas, and Budd, 3596
- de Noronha, F.** See Lee, Essex, de Noronha, and Azocar, 3995
- Denton, J. E., Lui, M. S., Aoki, T., Sebolt, J., Takeda, E., Eble, J. N., Glover, J. L., and Weber, G.** Enzymology of Pyrimidine and Carbohydrate Metabolism in Human Colon Carcinomas, 1176
- Deodhar, S. D., James, K., Chiang, T., Edinger, M., and Barna, B. P.** Inhibition of Lung Metastases in Mice Bearing a Malignant Fibrosarcoma by Treatment with Liposomes Containing Human C-reactive Protein (CRP), 5084
- DeOme, K. B.** See Guzman, Osborn, Yang, DeOme, and Nandi, 2376
- DePierre, J. W.** See Morgenstern, Guthenberg, Mannervik, DePierre, and Ernster, 4215
- Derks, J. P. A., Hofmans, L., Bruning, H. W., and Rood, J. J. v.** Synthesis of a Viral Protein with Molecular Weight of 30,000 (p30) by Leukemic Cells and Antibodies Cross-Reacting with Simian Sarcoma Virus p30 in Serum of a Chronic Myeloid Leukemia Patient, 681
- Dermer, G. B.** See Gendler, Dermer, Silverman, and Tokes, 4567
- Derocq, D.** See Vic, Vignon, Derocq, and Rochefort, 667
- Desai, P. R.** See Meadows, Pierson, Abdallah, and Desai, 3056
- de Saint Florent, G.** See Israël, Samak, Edelstein, Amouroux, Battesti, and de Saint Florent, 2489
- Deschner, E.** See Lightdale, Lipkin, and Deschner, 4280
- Dewey, W. C.** See Coss, Dewey, and Bamburg, 1059
- de Wit, J.** See Jaspers, de Wit, Regulski, and Bootsma, 335
- DeWyngaert, J. K.** See Leith, Dexter, DeWyngaert, Zeman, Chu, Calabresi, and Glucksman, 2556
- DeWys, W. D.** Pathophysiology of Cancer Cachexia: Current Understanding and Areas for Future Research, 721\*. See also Mednieks, Jungmann, and DeWys, 2742; Ungerleider, DeWys, and Fink, 698\*
- Dexter, D. L.** See Leith, Dexter, DeWyngaert, Zeman, Chu, Calabresi, and Glucksman, 2556; Leith, Gaskins, Dexter, Calabresi, and Glucksman, 30
- Dexter, D. L., Matook, G. M., Meitner, P. A., Bogaars, H. A., Jolly, G. A., Turner, M. D., and Calabresi, P.** Establishment and Characterization of Two Human Pancreatic Cancer Cell Lines Tumorigenic in Athymic Mice, 2705
- Dexter, D. L., Spremulli, E. N., Matook, G. M., Diamond, I., and Calabresi, P.** Inhibition of the Growth of Human Colon Cancer Xenografts by Polar Solvents, 5018
- Deysson, G.** See Ronot, Adolphe, Kuch, Jaffray, Lechat, and Deysson, 3193
- Diamond, I.** See Dexter, Spremulli, Matook, Diamond, and Calabresi, 5018
- Diamond, L.** See O'Brien, Saladi, and Diamond, 1233
- Diana, G.** See Palitti, Matarese, Diana, Sorrentino, and Rossi, 4753
- Diasio, R. B.** See Connolly, Armstrong, Diasio, and Kaplan, 4927
- Dietrich, J.** See Lengsfeld, Dietrich, and Schultze-Maurer, 3798
- DiFino, S. M.** See Comis, Issell, Pittman, Ginsberg, Rudolph, Aust, DiFino, Tinsley, Polesz, and Crooke, 2944
- DiGiovanni, J., Miller, D. R., Singer, J. M., Viaje, A., and Slaga, T. J.** Benzo(a)pyrene Metabolism in Primary Cultures of Mouse Epidermal Cells and Untransformed and Transformed Ep-

- Dermal Cell Lines, 1579
- Dillman, R. O., Handley, H. H., and Royston, I.** Establishment and Characterization of an Epstein-Barr Virus-negative Lymphoma B-Cell Line from a Patient with a Diffuse Large Cell Lymphoma, 1368
- Dinger, N.** See McCormick, Mehta, Thompson, Dinger, Caldwell, and Moon, 508
- DiPaolo, J. A.** See Mironescu, Epstein, and DiPaolo, 1274
- DiPetrillo, T.** See Sterling, DiPetrillo, Cutroneo, and Prestayko, 405; Sterling, DiPetrillo, Kotch, and Cutroneo, 3502
- DiSorbo, D. M., Paavola, L. G., and Litwack, G.** Pyridoxine Resistance in a Rat Hepatoma Cell Line, 2362
- Distasio, J. A., Durden, D. L., Paul, R. D., and Nadj, M.** Alteration in Spleen Lymphoid Populations Associated with Specific Amino Acid Depletion during L-Asparaginase Treatment, 252
- DiStefano, J. F., Beck, G., Lane, B., and Zucker, S.** Role of Tumor Cell Membrane-bound Serine Proteases in Tumor-induced Target Cytolysis, 207
- Dixon, R. J.** See Harvey, Lipton, White, Santen, Boucher, Shafik, Dixon, and Members of The Central Pennsylvania Oncology Group, 3451\*\*
- Dixson, R. J.** See Harvey, Santen, Boucher, White, Bernath, Dixon, Richards, and Shafik, 3434\*\*
- Dizik, M., Relyea, N. M., and Wainfan, E.** Intra-species Variation in Transfer RNA Methyltransferases of Inbred Mice, 4064
- Docklear, M. C.** See Testa, Henri, Bettaieb, Titeux, Vainchenker, Tonthat, Docklear, and Rochant, 4694
- Doll, J.** See Poste, Doll, Brown, Tzeng, and Zeidman, 2770
- Donahoe, R.** See Yuspa, Spangler, Donahoe, Geusz, Ferguson, Wenk, and Hennings, 437
- Donaldson, M.** See Nesbitt, Sather, Robison, Donaldson, Littman, Ortega, and Hammond, 674
- Donaldson, S. S.** Effect of Nutritional Status on Response to Therapy, 754\*\*
- Dong, Z.-W.** See Good, West, Day, Dong, and Fernandes, 737\*
- Donner, A.** See Kelsen, Scher, Alcock, Leyland-Jones, Donner, Williams, Greene, Burchenal, Tan, Phillips, and Young, 4831
- Donovan, P. A.** See Talmadge, Donovan, and Hart, 1850
- Dooley, K. L.** See Beland, Dooley, and Jackson, 1348
- Doolittle, C. H.** See Wiemann, Cummings, Kaplan, Spremulli, Doolittle, and Calabresi, 3896
- Dörner, P., Sauer, H., Schalthorn, A., and Wilman, W.** Differential Effect of High-Dose Methotrexate on Erythropoiesis and Granulocytopenia in Humans, 1604
- Dorsett, B. H.** See Cronin, Dorsett, and Ioachim, 292
- Dougherty, T. J.** Variability in Hematoporphyrin Derivative Preparations, 1188, Letter to the Editor
- Dow, L. W., Bhakta, M., and Wilimas, J.** Clonogenic Assay for Wilms' Tumor: Improved Technique for Obtaining Single-Cell Suspensions and Evidence for Tumor Cell Specificity, 5262
- Dowdle, E. B.** See Hoal, Wilson, and Dowdle, 5191
- Dowsett, M.** See Coombes, Chilvers, Dowsett, Gazet, Ford, Bettelheim, Gordon, Smith, Zava, Powles, and Investigators of the Collaborative Breast Cancer Project, 3415\*\*
- Drahovsky, D.** See Boehm and Drahovsky, 1537
- Dray, S.** See Mokyr, Hengst, and Dray, 974; Mokyr, Przepiorka, and Dray, 2537
- Drewinko, B.** See Stragand, Drewinko, Henderson, Grossie, Stephens, Barlogie, and Trujillo, 3111
- Drewinko, B., Yang, L. Y., and Barlogie, B.** Lethal Activity and Kinetic Response of Cultured Human Cells to 4'-(9-Acridinylamino)methanesulfon-m-anisidine, 107
- Dreyer, R. N.** See Weir, Cashmore, Dreyer, Graham, Hsiao, Moroson, Sawicki, and Bertino, 1696
- Droller, M. J., and Gomolka, D.** Inhibition of Tumor Growth in Association with Modifications of *in Vivo* Immune Response by Indomethacin and Polyinosinic:Polycytidylic Acid, 5038
- Drushella, M. M.** See Chee, Yonemoto, Leong, Richards, Smith, Klotz, Goto, Gascon, and Drushella, 3142
- Duch, N. S., Edelstein, M. P., Bowers, S. W., and Nichol, C. A.** Biochemical and Chemotherapeutic Studies on 2,4-Diamino-6-(2,5-dimethoxybenzyl)-5-methylpyrido[2,3-d]pyrimidine (BW 301U), a Novel Lipid-soluble Inhibitor of Dihydrofolate Reductase, 3987
- Ducore, J. M., Erickson, L. C., Zwelling, L. A., Laurent, G., and Kohn, K. W.** Comparative Studies of DNA Cross-Linking and Cytotoxicity in Burkitt's Lymphoma Cell Lines Treated with *cis*-Diamminedichloroplatinum(II) and L-Phenylalanine Mustard, 897
- Dudman, N. P. B., Slowiaczek, P., and Tattersall, M. H. N.** Methotrexate Rescue by 5-Methyltetrahydrofolate or 5-Formyltetrahydrofolate in Lymphoblast Cell Lines, 502
- Duffy, J. J.** See Brothman, Davis, Duffy, and Lindell, 1184
- Duhl, D. M.** See Wojtkowiak, Duhl, Briggs, Hnilica, Stein, and Stein, 4546
- Duhl, D. M., Banjar, Z., Briggs, R. C., Page, D. L., and Hnilica, L. S.** Tumor-associated Chromatin Antigens of Human Colonic Adenocarcinoma Cell Lines HT-29 and LoVo, 594
- Dunlop, N. M.** See Fischinger, Thiel, Lieberman, Kaplan, Dunlop, and Robey, 4650
- Dünwald, M.** See Rabes, Bücher, Hartmann, Linke, and Dünwald, 3220
- Dupont, B.** See Pollack, Vugrin, Hennessy, Herr, Dupont, and Whitmore, 2470
- Duprat, J.** See Godec, Moreau, Madelmont, Duprat, and Plagne, 525
- Durden, D. L.** See Distasio, Durden, Paul, and Nadj, 252
- Durie, B. G. M.** See Ahmann, Meyskens, Moon, Durie, and Salmon, 4495
- Durr, F. E.** See Citarella, Wallace, Murdock, Angier, Durr, and Forbes, 440
- Duttgupta, C., Romney, S. L., Palan, P. R., and Slagle, N. S.** Urinary Cyclic Nucleotides and the Cytopathology of Human Uterine Cervical Dysplasias, 2938
- Dworaczak, D.** See Porter, Dworaczak, and Gurtso, 1283
- Dykes, D. J.** See Corbett, Leopold, Dykes, Roberts, Griswold, and Schabel, 1707
- Dysart, G.** See Bradley, Dysart, Fitzsimmons, Harbach, Lewin, and Wolf, 2592
- E**
- Earhart, R. H., Tutsch, K. D., Koeller, J. M., Rodriguez, R., Robins, H. I., Vogel, C. L., Davis, H. L., and Tormey, D. C.** Pharmacokinetics of (+)-1,2-Di(3,5-dioxopiperazin-1-yl)propane Intravenous Infusions in Adult Cancer Patients, 5255
- Early, A. P., Preisler, H. D., Slocum, H., and Rustum, Y. M.** Pilot Study of High-Dose 1- $\beta$ -D-Arabinofuranosylcytosine for Acute Leukemia and Refractory Lymphoma: Clinical Response and Pharmacology, 1587
- Easty, D. M.** See Easty, Haemmerli, Easty, and Sträuli, 4248
- Easty, G. C., Haemmerli, G., Easty, D. M., and Sträuli, P.** Interactions between Normal Epithelial and Squamous Carcinoma Cells in Monolayer Culture, 4248
- Eaton, J. W.** See Wang, Yu, Liener, Hebbel, Eaton, and McKhann, 1046
- Eble, J. N.** See Denton, Lui, Aoki, Sebolt, Takeda, Eble, Glover, and Weber, 1176
- Eckert, R. L., and Katzenellenbogen, B. S.** Effects of Estrogens and Antiestrogens on Estrogen Receptor Dynamics and the Induction of Progesterone Receptor in MCF-7 Human Breast Cancer Cells, 139
- Eckhardt, A. E., Malone, B. N., and Goldstein, I. J.** Inhibition of Ehrlich Ascites Tumor Cell Growth by *Griffonia simplicifolia* I Lectin *in Vivo*, 2977
- Edelstein, M. P.** See Duch, Edelstein, Bowers, and Nichol, 3987
- Edelstein, R.** See Israël, Samak, Edelstein, Amouroux, Battesti, and de Saint Florent, 2489
- Edén, E.** See Bennegård, Edén, Ekman, Scherstén, and Lundholm, 4293; Lundholm, Bennegård, Edén, Svaninger, Emery, and Rennie, 4807
- Edinger, M.** See Deodhar, James, Chiang, Edinger, and Barna, 5084
- Edmonson, J. H.** See Ingle, Green, Ahmann, Edmonson, Nichols, Frytak, and Rubin, 3461\*\*
- Edström, S.** See Karlberg, Ekman, Edström, Scherstén, and Lundholm, 2284
- Edwards, A.** See Hersey, Hobbs, Edwards, McCarthy, and McGovern, 363
- Edwards, A. M.** Regulation of  $\gamma$ -Glutamyltranspeptidase in Rat Hepatocyte Monolayer Cultures, 1107
- Edwards, D. P.** See Ciocca, Adams, Björck, Edwards, and McGuire, 4256
- Edwards-Prasad, J.** See Prasad and Edwards-Prasad, 550
- Egan, E.** See Major, Egan, Herrick, and Kufe, 3005
- Egbers-Bogaards, M.** See van Beek, Tulp, Egbers-Bogaards, Roozendaal, and Smets, 5222
- Eidlen, D. M.** See Evans and Eidlen, 4437
- Einspahr, J. G.** See Goodman, Einspahr, Alberts, Davis, Leigh, Chen, and Meyskens, 2087
- Eisman, J. A.** See Frampton, Suva, Eisman, Findlay, Moore, Moseley, and Martin, 1116
- Ekman, L.** See Bennegård, Edén, Ekman, Scherstén, and Lundholm, 4293; Karlberg, Ekman, Edström, Scherstén, and Lundholm, 2284
- El-Bayoumy, K., and Hecht, S. S.** Identification of Mutagenic Metabolites Formed by C-Hydroxylation and Nitroreduction of 5-Nitroacenaphthene in Rat Liver, 1243
- Elibling, L., and Sauermann, G.** Predominance of a Cell Population Less Sensitive to Carcinogenesis in Neoplastic Cells of 3-Methylcholanthrene-induced Tumors in Mouse Aggregation Chimera, 3486
- Eldredge, D.** See Baumann and Eldredge, 2398
- Eling, T. E.** See Boyd, Barrett, and Eling, 2628; Degen, Eling, and McLachlan, 919; Guthrie, Robertson, Zeiger, Boyd, and Eling, 1620; Joseph, Mason, and Eling, 2567
- Elkind, M. M.** See Han and Elkind, 477
- Ellinger, M. S.** Responses of Amphibian Embryos and Blastomeres to a Tumor-promoting Phorbol Ester, 2804
- Elliott, J.** See Poznansky, Shandling, Salkie, Elliott, and Lau, 1020
- Ellison, M.** See Gusterson, Warburton, Mitchell, Ellison, Neville, and Rudland, 4763
- Emeh, J. K.** See Bhat, Emeh, Niranjan, and Avadhani, 1876
- Emery, P. W.** See Lundholm, Bennegård, Edén, Svaninger, Emery, and Rennie, 4807
- Engel, C.** See Evans, Engel, Wheatley, and Nielsen,

## F

- Enke, S. E. See McCarthy, Struck, Shih, Suling, Hill, and Enke, 3475
- Enomoto, K. See Ying, Enomoto, Sarma, and Farber, 876
- Enomoto, K., and Farber, E. Kinetics of Phenotypic Maturation of Remodeling of Hyperplastic Nodules during Liver Carcinogenesis, 2330
- Enouf, J. See Guigon, Mary, Enouf, and Frindel, 638
- Epstein, S. M. See Mironescu, Epstein, and Di-Paolo, 1274
- Erickson, B. W., Jr. See Shackney, Ford, Occhipinti, Ritch, Riccardi, and Erickson, 4339
- Erickson, L. C. See Ducore, Erickson, Zwelling, Laurent, and Kohn, 897
- Eriksson, L. C. See Bock, Lilienblum, Pfeil, and Eriksson, 3747
- Ernst, C. S. See Atkinson, Ernst, Herlyn, Steplewski, Sears, and Koprowski, 4820
- Ernst, L. See Morgenstern, Guttenberg, Manervik, DePierre, and Ernst, 4215
- Ersler, W. B. See Hacker, Ersler, Newman, and Gamelli, 4490
- Ertel, N. H. See Kirschner, Schneider, Ertel, and Worton, 3281\*\*
- Ertürk, E. See Matsushima, Takano, Ertürk, and Bryan, 3587
- Essex, M. See Lee, Essex, de Noronha, and Azocar, 3995
- Esumi, H., Takahashi, Y., Seki, M., Sato, S., Nagase, S., and Sugimura, T. Perinatal Changes of  $\alpha$ -Fetoprotein Concentration in the Serum and Its Synthesis in the Liver of Anabumimic Rats, 306
- Esumi-Kurusu, M. See Iwata-Dohi, Esumi-Kurusu, Ikenami, Sadatsune, Mizuno, and Yamazaki, 3196
- Ethier, S. P., and Ullrich, R. L. Detection of Ductal Dysplasia in Mammary Outgrowths Derived from Carcinogen-treated Virgin Female BALB/c Mice, 1753
- Etre, L. A. See MacIndoe, Woods, Etre, and Covey, 3378\*\*
- Evans, C. H. See Greiner and Evans, 4014
- Evans, J. E. See Galvan, Evans, Comis, Gottlieb, Gyorkey, Lane, Prestayko, and Crooke, 1562; Galvan, Evans, Huang, Prestayko, Wu, and Crooke, 1555
- Evans, R., and Eidlen, D. M. Concomitant Inhibition of Tumor-associated Inflammatory Responses and Rapid Enhancement of Cyclophosphamide-induced Tumor Regression by Hydrocortisone, 4437
- Evans, R. G., Engel, C., Wheatley, C., and Nielsen, J. Modification of the Sensitivity and Repair of Potentially Lethal Damage by Diethylthiocarbamate during and following Exposure of Plateau-Phase Cultures of Mammalian Cells to Radiation and *cis*-Diamminedichloroplatinum(II), 3074
- Evans, R. M., Davies, P. J. A., and Costa, M. Video Time-Lapse Microscopy of Phagocytosis and Intracellular Fate of Crystalline Nickel Sulfide Particles in Cultured Mammalian Cells, 2729
- Evces, S. See Lindahl, Evces, and Sheng, 577
- Evers, J. L., Patel, J., Madeja, J. M., Schneider, S. L., Hobika, G. H., Camilo, S. M., and Markus, G. Plasminogen Activator Activity and Composition in Human Breast Cancer, 219
- F
- Fache, M.-P., Lepault, F., and Frindel, E. Involvement of T-Lymphocytes in the Stimulatory Effects of EM<sub>7</sub> Tumors on Medullary Pluripotent Stem Cells of BALB/c Mice, 1922
- Fahy, J. L. See Messing, Fahy, deKernion, Bhuta, and Bubbers, 2392
- Fair, W. R. See Lazan, Heston, Kadmon, and Fair, 1390
- Fairchild, R. G., Greenberg, D., Watts, K. P., Packer, S., Atkins, H. L., Som, P., Hannon, S. J., Brill, A. B., Fand, I., and McNally, W. P. Chlorpromazine Distribution in Hamsters and Mice Bearing Transplantable Melanoma, 556
- Fairchild, R. G., Packer, S., Greenberg, D., Som, P., Brill, A. B., Fand, I., and McNally, W. P. Thiouracil Distribution in Mice Carrying Transplantable Melanoma, 5126
- Falchuk, K. R. See Puju, Shuker, Bishop, Falchuk, Tannenbaum, and Thilly, 2601
- Fand, I. See Fairchild, Greenberg, Watts, Packer, Atkins, Som, Hannon, Brill, Fand, and McNally, 556; Fairchild, Packer, Greenberg, Som, Brill, Fand, and McNally, 5126
- Fang, W. F., and Strobel, H. W. Effects of Cyclophosphamide and Polycyclic Aromatic Hydrocarbons on Cell Growth and Mixed Function Oxidase Activity in a Human Colon Tumor Cell Line, 3576
- Fantone, J. C. See Varani and Fantone, 190
- Farber, E. See Enomoto and Farber, 2330; Ying, Enomoto, Sarma, and Farber, 876
- Farhi, J.-J. See Fourcade, Farhi, Bennoun, and Tapiero, 1950
- Farkas-Himsley, H. See Baumal, Musclow, Farkas-Himsley, and Marks, 1904
- Farrelly, J. G., Stewart, M. L., Saavedra, J. E., and Lijinsky, W. Relationship between Carcinogenicity and *in Vitro* Metabolism of Nitrosomethylamine, Nitrosomethyl-N-butylamine, and Nitrosomethyl-(2-phenylethyl)amine Labeled with Deuterium in the Methyl and  $\alpha$ -Methylene Positions, 2105
- Fazzini, E. See Cohen, Raich, and Fazzini, 5050
- Feinberg, A. P., and Coffey, D. S. Organ Site Specificity for Cancer in Chromosomal Instability Disorders, 3252
- Feldman, D. See Colston, Colston, Fieldsteel, and Feldman, 856
- Feola, J. See Slagel, Feola, Houchens, and Overa, 812
- Ferguson, E. See Yuspa, Spangler, Donahoe, Geusz, Ferguson, Wenk, and Hennings, 437
- Ferguson, P. J. See Cass, Selner, Ferguson, and Phillips, 4991
- Fernandes, G. See Good, West, Day, Dong, and Fernandes, 737\*
- Fernandez-Pol, J. A., Hamilton, P. D., and Klos, D. J. Correlation between the Loss of the Transformed Phenotype and an Increase in Superoxide Dismutase Activity in a Revertant Subclone of Sarcoma Virus-infected Mammalian Cells, 609
- Ferrero, D. See Tarella, Ferrero, Gallo, Pagliardi, and Ruscetti, 445
- Ferrero, D., Tarella, C., Gallo, E., Ruscetti, F. W., and Breitman, T. R. Terminal Differentiation of the Human Promyelocytic Leukemia Cell Line, HL-60, in the Absence of Cell Proliferation, 4421
- Ferrone, S. See Burchiel, Martin, Imai, Ferrone, and Warner, 4110; Glassy and Ferrone, 3971; Natali, Wilson, Imai, Bigotti, and Ferrone, 583
- Feun, L. See Stewart, Leavens, Maor, Feun, Luna, Bonura, Caprioli, Loo, and Benjamin, 2474; Stewart, Wallace, Feun, Leavens, Young, Handel, Mavligit, and Benjamin, 2059
- Fichtinger-Schepman, A. M. J. See Brouwer, Fichtinger-Schepman, van de Putte, and Reedijk, 2416
- Fidler, I. J. See Poste, Bucana, Raz, Bugelski, Kirsh, and Fidler, 1412; Schroit and Fidler, 161
- Fidler, I. J., Barnes, Z., Fogler, W. E., Kirsh, R., Bugelski, P., and Poste, G. Involvement of Macrophages in the Eradication of Established Metastases following Intravenous Injection of Liposomes Containing Macrophage Activators, 496
- Fieldsteel, A. H. See Colston, Colston, Fieldsteel, and Feldman, 856
- Finch, M. See Meistrich, Finch, da Cunha, Hacker, and Au, 122
- Findlay, D. M. See Frampton, Suva, Eisman, Findlay, Moore, Moseley, and Martin, 1116
- Finegan, H. M. See Manni, Rainieri, Arafah, Finegan, and Pearson, 3492
- Fink, D. J. See Ungerleider, DeWys, and Fink, 698\*
- Fink, M. See Ziegler, Maier, and Fink, 1567
- Fink, M., Ziegler, I., Maier, K., and Wilmanns, W. Blood Levels of a Pteridine-binding  $\alpha_1$ -Acid Glycoprotein in Cancer Patients, 1574
- Fiori, L. See Kreis, Arlin, Yagoda, Leyland-Jones, and Fiori, 2514
- Fischer, P. H. See Lin, Fischer, Marsh, and Prusoff, 1624
- Fischinger, P. J. See Robey, Kuenzel, Vande Woude, and Fischinger, 2523
- Fischinger, P. J., Thiel, H. J., Lieberman, M., Kaplan, H. S., Dunlop, N. M., and Robey, W. G. Presence of a Novel Recombinant Murine Leukemia Virus-like Glycoprotein on the Surface of Virus-negative C57BL Lymphoma Cells, 4650
- Fisher, B., Gunduz, N., Zheng, S., and Saffer, E. A. Fluoresceinated Estrone Binding by Human and Mouse Breast Cancer Cells, 540
- Fisher, P. B., Miranda, A. F., Mufson, R. A., Weinstein, L. S., Fujiki, H., Sugimura, T., and Weinstein, I. B. Effects of Telectocidin and the Phorbol Ester Tumor Promoters on Cell Transformation, Differentiation, and Phospholipid Metabolism, 2829
- Fisher, R. I. See Levine, Brennan, Ramu, Fisher, Pizzo, and Glaubiger, 774\*
- Fisher, R. I., Silver, B. A., Vanhaelen, C. P., Jaffe, E. S., and Cossman, J. Objective Regressions of T- and B-Cell Lymphomas in Patients following Treatment with Anti-thymocyte Globulin, 2465
- Fishman, J. Biochemical Mechanism of Aromatization, 3277\*\*
- Fishman, W. H. See Lange, Millán, Stigbrand, Vessella, Ruoslahti, and Fishman, 3244; Millán, Stigbrand, Ruoslahti, and Fishman, 2444
- Fitzsimmons, K. See Bradley, Dysart, Fitzsimmons, Harbach, Lewin, and Wolf, 2592
- Fleischmann, W. R., Jr. Potentiation of the Direct Anticellular Activity of Mouse Interferons: Mutual Synergism and Interferon Concentration Dependence, 869
- Fleming, W. H., Pettigrew, N. M., Matusik, R. J., and Friesen, H. G. Thymic Origin of the Prolactin-dependent Nb2 Lymphoma Cell Line, 3138
- Fletcher, M. A. See Kozlovskis, Claflin, Fletcher, McKinney, and Rubin, 2748
- Fletcher, W. S. See Hoogstraaten, Fletcher, Gad-el-Mawla, Maloney, Altman, Vaughn, and Foulkes, 4788
- Floyd, R. See Yoo, Kuo, Spector, Denning, Floyd, Whiteaker, Kim, Kim, Abbas, and Budd, 3596
- Focher, F. See Pedrali-Noy, Belvedere, Crepaldi, Focher, and Spadari, 3810
- Fodstad, O., and Pihl, A. Synergistic Effect of Ricin in Combination with Daunorubicin, *cis*-Dichlorodiammineplatinum(II) and Vincristine in Systemic L1210 Leukemia, 2152
- Fogler, W. E. See Fidler, Barnes, Fogler, Kirsh, Bugelski, and Poste, 496
- Foidart, J.-M. See Kimata, Foidart, Pennypacker, Kleinman, Martin, and Hewitt, 2384
- Folstad, L. J. See Pallavicini, Gray, and Folstad, 3125
- Forbes, M. See Citarella, Wallace, Murdock, Angier, Durr, and Forbes, 440
- Forbes, P. D., Davies, R. E., Urbach, F., Berger, D., and Cole, C. Simulated Stratospheric Ozone Depletion and Increased Ultraviolet Radiation: Effects on Photocarcinogenesis in Hairless Mice, 2796
- Ford, H. T. See Coombes, Chivers, Dowsett, Gazet, Ford, Bettelheim, Gordon, Smith, Zava, Powles, and Investigators of the Collaborative Breast Cancer Project, 3415\*\*
- Ford, S. S. See Shackney, Ford, Occhipinti, Ritch,



- Riccardi, and Erickson, 4339
- Fornace, A. J., Jr.** Detection of DNA Single-Strand Breaks Produced during the Repair of Damage by DNA-Protein Cross-Linking Agents, 145
- Forrest, A. P. M.** See Miller, Hawkins, and Forrest, 3365\*\*
- Forsgren, B.** See Björk, Forsgren, Gustafsson, Pousette, and Högberg, 1935
- Forster, H. K., Gudat, F. G., Girard, M.-F., Albrecht, R., Schmidt, J., Ludwig, C., and Obrecht, J.-P.** Monoclonal Antibody against a Membrane Antigen Characterizing Leukemic Human B-Lymphocytes, 1927
- Fortner, G. W., Takemoto, L. J., Shehi, L., and Hansen, J. S.** Identification of Tumor-associated Antigens on Ultraviolet Light-induced Tumors Using Antitumor Antibodies Developed in Ascites Fluid, 2371
- Foulkes, M. A.** See Hoogstraten, Fletcher, Gad-el-Mawla, Maloney, Altman, Vaughn, and Foulkes, 4788
- Fourcade, A., Farhi, J.-J., Bannoun, M., and Tapiero, H.** Uptake, Efflux, and Hydrolysis of Aclacinomycin A in Friend Leukemia Cells, 1950
- Fouts, J. R.** See Jones, Holland, and Fouts, 4658
- Fowler, J. F.** See Chu and Fowler, 1943
- Fox, J. J.** See Burchenal, Chou, Lokys, Smith, Watanabe, Su, and Fox, 2598; Chou, Burchenal, Schmid, Braun, Su, Watanabe, Fox, and Philips, 3957
- Fox, R. M.** See Kaye, Woods, Fox, Coates, and Tattersall, 3445\*\*; Kefford and Fox, 324; Kefford, Helmer, and Fox, 3822; Mountford, Grossman, Reid, and Fox, 2270; Piper and Fox, 3753
- Fraleigh, E. E.** See Vogelzang, Lange, Goldman, Vessella, Fraley, and Kennedy, 4855
- Fram, R. J., and Kufe, D. W.** DNA Strand Breaks Caused by Inhibitors of DNA Synthesis: 1- $\beta$ -D-Arabinofuranosylcytosine and Aphidicolin, 4050
- Frampton, R. J., Suva, L. J., Eisman, J. A., Findlay, D. M., Moore, G. E., Moseley, J. M., and Martin, T. J.** Presence of 1,25-Dihydroxyvitamin D<sub>3</sub> Receptors in Established Human Cancer Cell Lines in Culture, 1116
- Francis, P. R.** See Taylor, Slowiczek, Francis, and Tattersall, 5159
- Frankel, A. E., Rouse, R. V., Wang, M. C., Chu, T. M., and Herzenberg, L. A.** Monoclonal Antibodies to a Human Prostate Antigen, 3714
- Frederick, C. B., Mays, J. B., Ziegler, D. M., Guengerich, F. P., and Kadlubar, F. F.** Cytochrome P-450- and Flavin-containing Monooxygenase-catalyzed Formation of the Carcinogen N-Hydroxy-2-aminofluorene and Its Covalent Binding to Nuclear DNA, 2671
- Fredrickson, G. G., and Bennett, M.** Suppression of the Cytotoxic Response of Mouse Lymphocytes to Syngeneic Tumor Cells by Tumor-promoting Phorbol Ester, 3601
- Freireich, E. J.** See Plunkett, Benjamin, Keating, and Freireich, 2092
- French, F. S.** See Wilson, French, and Petrusz, 243
- Frenkel, E. P.** See Reynolds, Reynolds, Frenkel, and Smith, 1331
- Friedman, E. A., and Steinberg, M.** Disrupted Communication between Late-Stage Premalignant Human Colon Epithelial Cells by 12-O-Tetradecanoylphorbol-13-acetate, 5096
- Friedman, H. M., and Glaubiger, D. L.** Assessment of *in Vitro* Drug Sensitivity of Human Tumor Cells Using [<sup>3</sup>H]Thymidine Incorporation in a Modified Human Tumor Stem Cell Assay, 4683
- Friedman, R. D.** See Bachur, Gee, and Friedman, 1078
- Friedman, S. J.** See Fleming and Friedman, 1636
- Friesen, H. G.** See Fleming, Pettigrew, Matusik, and Friesen, 3138; Imai, Leung, Friesen, and Shiu, 4394
- Friesen, M.** See Camus, Friesen, Croisy, and Bartsch, 3201
- Frindel, E.** See Fache, Lepault, and Frindel, 1922; Guigon, Mary, Enouf, and Frindel, 638
- Frøese, E. K.** See Goldenberg and Frøese, 5147
- Fry, D. W.** See Yalowich, Fry, and Goldman, 3648
- Fry, D. W., Yalowich, J. C., and Goldman, I. D.** Augmentation of the Intracellular Levels of Polyglutamyl Derivatives of Methotrexate by Vincristine and Probenecid in Ehrlich Ascites Tumor Cells, 2532
- Frytak, S.** See Ingle, Green, Ahmanson, Edmonson, Nichols, Frytak, and Rubin, 3461\*\*
- Fuji, H.** See Bhattacharya, Chatterjee, Barlow, and Fuji, 1650
- Fujiki, H.** See Fisher, Miranda, Mufson, Weinstein, Fujiki, Sugimura, and Weinstein, 2829
- Fujimoto, S., Ogawa, M., and Sakurai, Y.** Hypothetical Mechanism of Therapeutic Synergism Induced by the Combination of 6-Thioguanine and 3-[4-Amino-2-methyl-5-pyrimidinyl-methyl]-1-(2-chloroethyl)-1-nitrosourea Hydrochloride, 4079
- Fujino, T.** See Park, Fujino, West, Guengerich, and Gelboin, 1798
- Fujita, K., Shingo, K., Yamada, K., Sato, T., Niimi, H., Shamoto, M., Nagatsu, T., Takeuchi, T., and Umezawa, H.** Reduction of Adriamycin Toxicity by Ascorbate in Mice and Guinea Pigs, 309
- Fujita, T.** See Nakao, Matsuda, Fujita, Watanabe, Morikawa, Saita, and Ito, 3843
- Fujiwara, K., Saikusa, H., Yasuno, M., and Kitagawa, T.** Enzyme Immunoassay for the Quantification of Mitomycin C Using  $\beta$ -Galactosidase as a Label, 1487
- Fuks, A.** See Brenner, Jothy, Shuster, and Fuks, 3187
- Fuks, Z.** See Gabizon, Dagan, Goren, Barenholz, and Fuks, 4734
- Fukui, M.** See Inaba, Fukui, Yoshida, Tsukagoshi, and Sakurai, 1103
- Fukui, M., Inaba, M., Tsukagoshi, S., and Sakurai, Y.** New Antitumor Imidazole Derivative, 5-Carbamoyl-1H-imidazo[4-yl] Piperonylate, as an Inhibitor of Purine Synthesis and Its Activation by Adenine Phosphoribosyltransferase, 1098
- Fukunishi, R.** See Yoshida, Yoshida, Fukunishi, Sato, Okamoto, and Matsumoto, 2434
- Fukushima, S.** See Cohen, Muraaki, Fukushima, and Greenfield, 65
- Fuller, D. J. M., and Gerner, E. W.** Delayed Sensitization to Heat by Inhibitors of Polyamine-biosynthetic Enzymes, 5046
- Fürstenberger, G.** See Delescluse, Fürstenberger, Marks, and Prunieris, 1975
- Fürstenberger, G., Richter, H., Argyris, T. S., and Marks, F.** Effects of the Phorbol Ester 4-O-Methyl-12-O-Tetradecanoylphorbol-13-acetate on Mouse Skin *in Vivo*: Evidence for Its Uselessness as a Negative Control Compound in Studies on the Biological Effects of Phorbol Ester Tumor Promoters, 342
- Furukawa, H., Iwanaga, T., Koyama, H., and Taniguchi, H.** Effect of Sex Hormones on Carcinogenesis in the Stomachs of Rats, 5181
- Fusco, A., Pinto, A., Tramontano, D., Tajana, G., Vecchio, G., and Tsuchida, N.** Block in the Expression of Differentiation Markers of Rat Thyroid Epithelial Cells by Transformation with Kirsten Murine Sarcoma Virus, 618
- Fuse, A., Mahmud, I., and Kuwata, T.** Mechanism of Stimulation by Human Interferon of Prostaglandin Synthesis in Human Cell Lines, 3209
- Gabizon, A., Dagan, A., Goren, D., Barenholz, Y., and Fuks, Z.** Liposomes as *in Vivo* Carriers of Adriamycin: Reduced Cardiac Uptake and Preserved Antitumor Activity in Mice, 4734
- Gad-el-Mawla, N.** See Hoogstraten, Fletcher, Gad-el-Mawla, Maloney, Altman, Vaughn, and Foulkes, 4788
- Gahmberg, C. G.** See Keski-Oja, Gahmberg, and Allitalo, 1147
- Gaillard, M. T.** See Metzgar, Gaillard, Levine, Tuck, Bossen, and Borowitz, 601
- Gainer, A. L., and Stinson, R. A.** Cysteine S-Phosphate Hydrolysis by Pure Human Alkaline Phosphatases and by Sera from Patients with Lymphoproliferative Disorders, 3507
- Gale, K. E.** Treatment of Advanced Breast Cancer with Aminoglutethimide: A 14-Year Experience, 3389\*\*
- Galili, U., Leizerowitz, R., Moreb, J., Gamliel, H., Gurfel, D., and Pollack, A.** Metabolic and Ultrastructural Aspects of the *in Vitro* Lysis of Chronic Lymphocytic Leukemia Cells by Glucocorticoids, 1433
- Gallie, B. L., Holmes, W., and Phillips, R. A.** Reproducible Growth in Tissue Culture of Retinoblastoma Tumor Specimens, 301
- Gallo, E.** See Ferrero, Tarella, Gallo, Ruscetti, and Breitman, 4421; Tarella, Ferrero, Gallo, Pagliardi, and Ruscetti, 445
- Gallo, R. C.** See Olsson, Breitman, and Gallo, 3928
- Galvan, L., Evans, J. E., Comis, R. L., Gottlieb, A., Gyorkey, F., Lane, M., Prestayko, A. W., and Crooke, S. T.** Detection of a Serum DNA-binding Protein Associated with Cancer, 1562
- Galvan, L., Evans, J. E., Huang, C.-H., Prestayko, A. W., Wu, B., and Crooke, S. T.** Inhibition of PM-2 DNA Degradation by a Human Serum Protein, 1555
- Gambone, J. C.** See Judd, Barone, Laufer, Gambone, Monfort, and Lasley, 3345\*\*
- Gamelli, R. L.** See Hacker, Ershler, Newman, and Gamelli, 4490
- Gamliel, H.** See Galili, Leizerowitz, Moreb, Gamliel, Gurfel, and Pollack, 1433
- Ganapathi, R.** See Rubin, Quillen, Corcoran, Ganapathi, and Krishan, 1384
- Gangolli, S. D.** See Phillips, Bex, Lake, Cottrell, and Gangolli, 3761
- Garbaczewski, L.** See Hill, Wynder, Garbaczewski, Gurnes, and Walker, 2074; Hill, Wynder, Garbaczewski, and Walker, 3864
- Garcia, D.** See Bowden, Garcia, Peng, and Alberts, 2660
- Garner, C. D.** See Wang, Linsmaier-Bednar, Garner, and Lee, 3974
- Garnes, H.** See Hill, Wynder, Garbaczewski, Garnes, and Walker, 2074
- Garratt, K. N.** See Ibsen, Orlando, Garratt, Hernandez, Giorlando, and Nungaray, 888
- Garrett, W. M.** See Brodie, Garrett, Hendrickson, and Tsai-Morris, 3360\*\*
- Gascon, R. L.** See Chee, Yonemoto, Leong, Richards, Smith, Klotz, Goto, Gascon, and Drushella, 3142
- Gaskins, L. A.** See Leith, Gaskins, Dexter, Calabresi, and Glucksman, 30
- Gastaut, J.-A.** See Scavennec, Maraninchi, Gastaut, Carcassonne, and Cailla, 1326
- Gatley, S. J.** See Witter, Balish, and Gatley, 3654
- Gazdar, A. F.** See Luk, Goodwin, Gazdar, and Baylin, 3070
- Gazet, J.-C.** See Coombes, Chivers, Dowsett, Gazet, Ford, Bettelheim, Gordon, Smith, Zava, Powles, and Investigators of the Collaborative Breast Cancer Project, 3415\*\*; Smith, Harris, Morgan, Gazet, and McKinna, 3430\*\*
- Gee, M. V.** See Bachur, Gee, and Friedman, 1078
- Gehly, E. B., and Heidelberger, C.** Metabolic Activation of Benzo(a)pyrene by Transformable and Nontransformable C3H Mouse Fibroblasts in Culture, 2697
- Gehly, E. B., Landolph, J. R., Heidelberger, C., Nagasawa, H., and Little, J. B.** Induction of Cytotoxicity, Mutation, Cytogenetic Changes, and Neoplastic Transformation by Benzo(a)pyrene and Derivatives in C3H/10T1/2 Clone 8 Mouse Fibroblasts, 1866
- Geiger, B.** See Raz and Geiger, 5183
- Gelboin, H. V.** See Park, Fujino, West, Guengerich, and Gelboin, 1798

- Geller, N. L. See Katopodis, Hirschaut, Geller, and Stock, 5270
- Gelman, R. S. See Corkery, Leonard, Henderson, Gelman, Hourihan, Ascoli, and Salhanick, 3409\*\*
- Gendler, S. J., Dermer, G. B., Silverman, L. M., and Tokes, Z. A. Synthesis of  $\alpha_1$ -Antichymotrypsin and  $\alpha_1$ -Acid Glycoprotein by Human Breast Epithelial Cells, 4567
- Gerner, E. W. See Cress, Culver, Moon, and Gerner, 1716; Fuller and Gerner, 5046
- Gerrie, B. See See, Sun, McComb, Gerrie, and Kovacs, 2336
- Gersel, A. See Vindeløv, Hansen, Gersel, Hirsch, and Nissen, 2499
- Gespach, C. See Laboisse, Augeron, Couturier-Turpin, Gespach, Cheret, and Potet, 1541
- Getz, G. See Rubin, Getz, and Swift, 1395
- Getz, M. J. See Courtney, Schmidt, and Getz, 569
- Geusz, S. See Yuspa, Spangler, Donahoe, Geusz, Ferguson, Wenk, and Hennings, 437
- Ghanta, V. K. See Kikuchi, Takagi, Parmley, Ghanta, and Hiramoto, 1072
- Ghio, R. See Pannacchiulli, Massa, Bogliolo, Ghio, and Sobrero, 530
- Ghoshal, P. K. See Hass, McKeown, Sardella, Boger, Ghoshal, and Huberman, 1646
- Giardina, S. L. See Bastida, Ordinas, Giardina, and Jamieson, 4348
- Gibson, I. See Tidd, Gibson, and Dean, 3769
- Gierthy, J. F. See Toolan, Rhode, and Gierthy, 2552
- Gilbert, F. See Balaban and Gilbert, 1838
- Giles, P. J., and Cousins, R. J. Hormonal Regulation of Zinc Metabolism in a Human Prostatic Carcinoma Cell Line (PC-3), page 2
- Gindhart, T. D. See Colburn, Gindhart, Hegamyer, Blumberg, Delclos, Magun, and Lockyer, 3093
- Ginsberg, S. J. See Comis, Issell, Pittman, Ginsberg, Rudolph, Aust, DiFino, Tinsley, Polesz, and Crooke, 2944
- Ginsburg, E. See Minnaugh, Trush, Ginsburg, and Gram, 3574
- Giorlando, S. See Ibsen, Orlando, Garratt, Hernandez, Giorlando, and Nungaray, 888
- Giovanella, B. C. See Morgan, Rossen, McCormick, Stehlin, and Giovanella, 881
- Girard, M.-F. See Forster, Gudat, Girard, Albrecht, Schmidt, Ludwig, and Obrecht, 1927
- Glassy, M. C., and Ferrone, S. Differential Segregation Patterns of Human Chromosomes in Somatic Cell Hybrids Constructed with Human B-Lymphocytes and Human Melanoma Cells, 3971
- Glaubiger, D. L. See Friedman and Glaubiger, 4683; Levine, Brennan, Ramu, Fisher, Pizzo, and Glaubiger, 774\*; Riccardi, Chabner, Glaubiger, Wood, and Poplack, 1736
- Glazer, R. I., Hartman, K. D., and Richardson, C. L. Cytokinetic and Biochemical Effects of 5-Iminodaurorubicin in Human Colon Carcinoma in Culture, 117
- Glick, M. C. See Rachesky, Hard, and Glick, 39
- Glickman, B. W. See Schaaper, Glickman, and Loeb, 3480
- Glicksman, A. S. See Leith, Dexter, DeWyngeart, Zeman, Chu, Calabresi, and Glicksman, 2556; Leith, Gaskins, Dexter, Calabresi, and Glicksman, 30
- Glode, L. M., Robinson, W. A., Hartmann, D. W., Klein, J. J., Thomas, M. R., and Morton, N. Autologous Bone Marrow Transplantation in the Therapy of Small Cell Carcinoma of the Lung, 4270
- Glover, J. L. See Denton, Lui, Aoki, Sebolt, Takeda, Eble, Glover, and Weber, 1176
- Godeneche, D., Moreau, M.-F., Madelmont, J.-C., Duprat, J., and Plagne, R. Disposition and Metabolism of 1-(2-Chloroethyl)-3-(2',3',4'-trio-O-acetyl, ribopyranosyl)-1-nitrosurea in Rats, 525
- Goetichius, M. P. See Appleton, Goetichius, and Campbell, 3659
- Göhde, W. See Barranco, May, Boerwinkle, Nichols, Hokanson, Schumann, Göhde, Bryant, and Guseman, 2894
- Goldenberg, G. J. See Begleiter, Grover, and Goldenberg, 987
- Goldenberg, G. J., and Froese, E. K. Drug and Hormone Sensitivity of Estrogen Receptor-positive and -negative Human Breast Cancer Cells *in Vitro*, 5147
- Goldman, A. See Vogelzang, Lange, Goldman, Vessella, Fraley, and Kennedy, 4855
- Goldman, I. D. See Fry, Yalowich, and Goldman, 2532; Yalowich, Fry, and Goldman, 3648
- Goldstein, I. J. See Eckhardt, Malone, and Goldstein, 2977
- Golomb, H. M. See Lockney, Golomb, and Dawson, 3724
- Gomi, K., Morimoto, M., and Nomoto, K. Cytotoxic T-Cell-mediated Antitumor Effect of Levamisole against Murine Syngeneic Fibrosarcoma, 4197
- Gomolka, D. See Droller and Gomolka, 5038
- Gonda, M. A. See Rizzino, Gonda, and Rapp, 1881
- Gonzalez, R. See Gospodarowicz, Lui, and Gonzalez, 3704
- Good, R. A., West, A., Day, N. K., Dong, Z.-W., and Fernandes, G. Effects of Undernutrition on Host Cell and Organ Function, 737\*
- Goodman, G. E., Einspahr, J. G., Alberts, D. S., Davis, T. P., Leigh, S. A., Chen, H. S. G., and Meykens, F. L. Pharmacokinetics of 13-cis-Retinoic Acid in Patients with Advanced Cancer, 2087
- Goodrich, G. R. See Groopman, Haugen, Goodrich, Wogan, and Harris, 3120
- Goodwin, G. See Luk, Goodwin, Gazdar, and Baylin, 3070
- Goodwin, G., and Baylin, S. B. Relationships between Neuroendocrine Differentiation and Sensitivity to  $\gamma$ -Radiation in Culture Line OH-1 of Human Small Cell Lung Carcinoma, 1361
- Gorczyński, R. M., and MacRae, S. Retardation and Promotion of Growth of Spontaneously Appearing Tumors Using Immune Lymphocytes Previously Exposed to Embryonic Antigens, 784
- Gordon, C. See Coombes, Chivers, Dowsett, Gazet, Ford, Bettelheim, Gordon, Smith, Zava, Powles, and Investigators of the Collaborative Breast Cancer Project, 3415\*\*
- Gorelik, L. S. See Shain, Gorelik, Boesel, Radwin, and Lamm, 4849
- Goren, D. See Gabizon, Dagan, Goren, Barenholz, and Fuks, 4734
- Gorschboth, C. M. See Arbeit, Burt, Rubinstein, Gorschboth, and Brennan, 4936
- Gospodarowicz, D., Lui, G.-M., and Gonzalez, R. High-Density Lipoproteins and the Proliferation of Human Tumor Cells Maintained on Extracellular Matrix-coated Dishes and Exposed to Defined Medium, 3704
- Gota, C. H. See Chlebowski, Gota, Chan, Weiner, Block, and Bateman, 4827
- Göthlin, J. H. See Bakke, Göthlin, Haukaas, and Kalland, 3880
- Goto, R. M. See Chee, Yonemoto, Leong, Richards, Smith, Klotz, Goto, Gascon, and Drushella, 3142
- Goto, Y. See Tsuchiya, Kobayashi, Goto, Okumura, Nakae, Konno, and Tada, 1530
- Gottlieb, A. See Galvan, Evans, Comis, Gottlieb, Gyorkey, Lane, Prestayko, and Crooke, 1562
- Gould, M. N., Cathers, L. E., and Moore, C. J. Human Breast Cell-mediated Mutagenesis of Mammalian Cells by Polycyclic Aromatic Hydrocarbons, 4619
- Goutas, L. J. See Sirotnak, Moccio, Goutas, Kleher, and Montgomery, 924
- Gozzo, J. J. See De Fazio, Gozzo, and Monaco, 2913
- Grafstrom, R. C. See Autrup, Grafstrom, Brugh, Lechner, Haugen, Trump, and Harris, 934
- Graham, M. L. See Weir, Cashmore, Dreyer, Graham, Hsiao, Moroson, Sawicki, and Bertino, 1696
- Gram, T. E. See Minnaugh, Trush, Ginsburg, and Gram, 3574
- Grant, S., and Cadman, E. Modulation of 1- $\beta$ -D-Arabinofuranosylcytosine Metabolism and Cytotoxicity in L1210 Cells by Fluoropyrimidine Pretreatment, 3550
- Grant, S., Rauscher, F., III, and Cadman, E. Differential Effect of N-(Phosphonacetyl)-L-aspartate on 1- $\beta$ -D-Arabinofuranosylcytosine Metabolism and Cytotoxicity in Human Leukemia and Normal Bone Marrow Progenitors, 4007
- Grant, S., Rauscher, F., III, Margolin, J., and Cadman, E. Dose- and Schedule-dependent Activation and Drug Synergism between Thymidine and 5-Aza-2'-deoxycytidine in a Human Promyelocytic Leukemia Cell Line, 519
- Gray, J. W. See Pallavicini, Gray, and Folstad, 3125
- Grdina, D. J. See Brock, Swartzendruber, and Grdina, 4999
- Greco, A. E. See Vonderhaar and Greco, 4553
- Greco, W. R. See Zakrzewski, Pavelic, Greco, Bullard, Creaven, and Mihich, 2177
- Green, A. A. See Houghton, Houghton, and Green, 535
- Green, D. C. See Ahlgren, Green, Tew, and Schein, 2605
- Green, S. J. See Ingle, Green, Ahmann, Edmonson, Nichols, Frytak, and Rubin, 3461\*\*
- Greenberg, D. See Fairchild, Greenberg, Watts, Packer, Atkins, Som, Hannon, Brill, Fand, and McNally, 556; Fairchild, Packer, Greenberg, Som, Brill, Fand, and McNally, 5126
- Greene, G. See Kelsen, Scher, Alcock, Leyland-Jones, Donner, Williams, Greene, Burchenal, Tan, Phillips, and Young, 4831
- Greene, R. See Ozols, Young, Speyer, Sugarbaker, Greene, Jenkins, and Myers, 4265
- Greenfield, R. E. See Cohen, Murasaki, Fukushima, and Greenfield, 65
- Greengard, O. See Koss and Greengard, 2146
- Greiner, J. W., and Evans, C. H. Temporal Dynamics of Cortisol and Dexamethasone Prevention of Benzo(a)pyrene-induced Morphological Transformation of Syrian Hamster Cells, 4014
- Griffin, G. D., Owen, B. A., Atchley, C. E., Novelli, G. D., and Solomon, A. Decreased Immunoglobulin Production by a Human Lymphoid Cell Line following Melphalan Treatment, 4505
- Griffith, J. K. See Tobey, Enger, Griffith, and Hildebrand, 2980
- Grimm, E. A. See Mazumder, Grimm, Zhang, and Rosenberg, 913
- Grindey, G. See Bruno, Grindey, Zakrzewski, Priore, Kinahan, Moayeri, Ledesma, Mittelman, and Creaven, 4824
- Griswold, D. P., Jr. See Corbett, Leopold, Dykes, Roberts, Griswold, and Schabel, 1707
- Gronert, B. J. See Schmidt, Gronert, Page, Briggs, and Hnilica, 3164
- Groopman, J. D., Haugen, A., Goodrich, G. R., Wogan, G. N., and Harris, C. C. Quantitation of Aflatoxin B<sub>1</sub>-modified DNA Using Monoclonal Antibodies, 3120
- Grosfeld, J. L. See Rickard, Baehner, Coates, Weetman, Provisor, and Grosfeld, 766\*
- Grossie, B. See Stragand, Drewinko, Henderson, Grossie, Stephens, Barlogie, and Trujillo, 3111
- Grossman, G. See Mountford, Grossman, Reid, and Fox, 2270
- Grover, J. See Begleiter, Grover, and Goldenberg, 987
- Gruss, R. J. See Boffa, Gruss, and Allfrey, 382
- Gudat, F. G. See Forster, Gudat, Girard, Albrecht, Schmidt, Ludwig, and Obrecht, 1927
- Guengerich, F. P. See Frederick, Mays, Ziegler, Guengerich, and Kadlubar, 2671; Park, Fujino, West, Guengerich, and Gelboin, 1798
- Guffy, M. M., Rosenberger, J. A., Simon, I., and



- Burns, C. P. Effect of Cellular Fatty Acid Alteration on Hyperthermic Sensitivity in Cultured L1210 Murine Leukemia Cells, 3625
- Guidotti, G. G. See Piedimonte, Borghetti, and Guidotti, 4690
- Guigou, M., Marry, J.-Y., Enouf, J., and Frindel, E. Protection of Mice against Lethal Doses of  $1/\beta$ -D-Arabinofuranosylcytosine by Pluripotent Stem Cell Inhibitors, 638
- Guittinan, M. See Berns, Dahlman, Johnson, Burns, Sperling, Guittinan, Siemens, Walter, Wright, Hammer-Wilson, and Wile, 2325
- Gulino, A., and Pasqualini, J. R. Heterogeneity of Binding Sites for Tamoxifen and Tamoxifen Derivatives in Estrogen Target and Nontarget Fetal Organs of Guinea Pig, 1913
- Gunduz, N. See Fisher, Gunduz, Zheng, and Saffer, 540
- Gupta, V., and Krishan, A. Effect of Oxygen Concentration on the Growth and Drug Sensitivity of Human Melanoma Cells in Soft-Agar Clonogenic Assay, 1005
- Gurfel, D. See Galili, Leizerowitz, Moreb, Gamliel, Gurfel, and Pollack, 1433
- Gurtsoo, H. L. See Berrigan, Marinello, Pavelic, Williams, Struck, and Gurtsoo, 3688; Porter, Dworaczek, and Gurtsoo, 1283
- Guseman, L. F. See Barranco, May, Boerwinkle, Nichols, Hokanson, Schumann, Gohde, Bryant, and Guseman, 2894; Barranco, Townsend, Costanzi, May, Baltz, O'Quinn, Leipzig, Hokanson, Guseman, and Boerwinkle, 2899
- Gustafsson, J.-Å. See Björk, Forsgren, Gustafsson, Poussette, and Högberg, 1935
- Gusterson, B. A. See Rudland, Gusterson, Hughes, Ormerod, and Warburton, 5196
- Gusterson, B. A., Warburton, M. J., Mitchell, D., Ellison, M., Neville, A. M., and Rudland, P. S. Distribution of Myoepithelial Cells and Basement Membrane Proteins in the Normal Breast and in Benign and Malignant Breast Diseases, 4763
- Guthenberg, C. See Morgenstern, Guthenberg, Mannervik, DePierre, and Ernster, 4215
- Guthrie, J., Robertson, I. G. C., Zeiger, E., Boyd, J. A., and Eling, T. E. Selective Activation of Some Dihydrodiols of Several Polycyclic Aromatic Hydrocarbons to Mutagenic Products by Prostaglandin Synthetase, 1620
- Gutman, R. See Chang and Gutman, 2666
- Guterman, J. U. See Lotzová, Savary, Guttermann, and Hersh, 2480
- Guy, G. R., and Murray, A. W. Tumor Promoter Stimulation of Phosphatidylcholine Turnover in HeLa Cells, 1980
- Guzman, R. C., Osborn, R. C., Yang, J., DeOme, K. B., and Nandi, S. Transplantation of Mouse Mammary Epithelial Cells Grown in Primary Collagen Gel Cultures, 2376
- Gyorkey, F. See Galvan, Evans, Comis, Gottlieb, Gyorkey, Lane, Prestayko, and Crooke, 1562

## H

- Habs, H. See Preussmann, Habs, Habs, and Schmähl, 5167
- Habs, M. See Preussmann, Habs, Habs, and Schmähl, 5167
- Hacker, M. P., Ersler, W. B., Newman, R. A., and Gamelli, R. L. Effect of Disulfiram (Tetraethylthiuram Disulfide) and Diethyldithiocarbamate on the Bladder Toxicity and Antitumor Activity of Cyclophosphamide in Mice, 4490
- Hacker, U. See Meistrich, Finch, da Cunha, Hacker, and Au, 122
- Hadden, E. M., Sadiqi, J. R., Coffey, R. G., and Hadden, J. W. Effects of Phorbol Myristate Acetate and a Lymphokine on Cyclic 3':5'-Guanosine Monophosphate Levels and Proliferation of Macrophages, 3064
- Hadden, J. W. See Hadden, Sadiqi, Coffey, and Hadden, 3064

- Hadjiloucas, E. See Kyrtopoulos, Hadjiloucas, and Vrotsou, 1962
- Haemmerli, G. See Easty, Haemmerli, Easty, and Sträuli, 4248
- Hager, J. C., and Heppner, G. H. Heterogeneity of Expression and Induction of Mouse Mammary Tumor Virus Antigen in Mouse Mammary Tumors, 4325
- Hakomori, S.-I. See Kannagi, Levine, Watanabe, and Hakomori, 5249
- Hakura, A. See Yutsudo, Tanigaki, Tsumori, Watanabe, and Hakura, 2440
- Halberg, F. See Hrushesky, Levi, Halberg, and Kennedy, 945; Levi, Hrushesky, Blomquist, Lakatua, Haus, Halberg, and Kennedy, 950
- Hales, B. F. Comparison of the Mutagenicity and Teratogenicity of Cyclophosphamide and Its Active Metabolites, 4-Hydroxycyclophosphamide, Phosphoramidate Mustard, and Acrolein, 3016
- Halila, H. See Alitalo, Halila, Vesterinen, and Vaheri, 1142
- Hall, L. M., See Pretlow, Whitehurst, Pretlow, Hunt, Jacobs, McKenzie, McDaniel, Hall, and Bradley, 4842
- Hamburg, A. See Beemer, Vlug, Rijkse, Hamburg, and Staal, 4228
- Hamilton, P. D. See Fernandez-Pol, Hamilton, and Klos, 609
- Hammer-Wilson, M. See Berns, Dahlman, Johnson, Burns, Sperling, Guittinan, Siemens, Walter, Wright, Hammer-Wilson, and Wile, 2325
- Hammond, G. D. See Nesbit, Sather, Robison, Donaldson, Littman, Ortega, and Hammond, 674
- Han, A., and Elkind, M. M. Enhanced Transformation of Mouse 10T1/2 Cells by 12-O-Tetradecanoylphorbol-13-acetate following Exposure to X-Rays or to Fission-Spectrum Neutrons, 477
- Hancock, C. See Tan, Hancock, Steinhilber, Steinhilber, Sorell, Chan, Mondora, and Miller, 1579
- Handel, S. See Stewart, Wallace, Feun, Leavens, Young, Handel, Mavligit, and Benjamin, 2059
- Handley, H. H. See Dillman, Handley, and Royston, 1368
- Handschumacher, R. E. See Moyer, Smith, Levy, and Handschumacher, 4525
- Hanna, N. Inhibition of Experimental Tumor Metastasis by Selective Activation of Natural Killer Cells, 1337
- Hannon, S. J. See Fairchild, Greenberg, Watts, Packer, Atkins, Som, Hannon, Brill, Fand, and McNally, 556
- Hansen, E. R., and Brooks, S. C. Estrone Receptor Formation During the Processing of Estradiol-Receptor Complex in MCF-7 Cells, 1967
- Hansen, H. H. See Vindelov, Hansen, Gersel, Hirsch, and Nissen, 2499
- Hansen, J. A. See O'Dea, Pons, Hansen, and Mirkin, 4433
- Hansen, J. S. See Fortner, Takemoto, Sheh, and Hansen, 2371
- Hansson, J. See Lewensohn, Ringborg, and Hansson, 84
- Hara, T. See Seto, Umemoto, Saito, Masuho, Hara, and Takahashi, 5209
- Harada, T. See Onoda, Morikawa, Harada, Suzuki, Inoue, and Nishigami, 2867
- Harbach, P. See Bradley, Dysart, Fitzsimmons, Harbach, Lewin, and Wolf, 2592
- Hard, G. C. See Rachesky, Hard, and Glick, 39
- Hargis, B. J. See Uren, Hargis, and Beardsley, 4068
- Harley, E. R., Paterson, A. R. P., and Cass, C. E. Initial Rate Kinetics of the Transport of Adenosine and 4-Amino-7-( $\beta$ -D-ribofuranosyl)pyrrolo[2,3-d]pyrimidine (Tubercidin) in Cultured Cells, 1289
- Harmon, J. M., Schmidt, T. J., and Thompson, E. B. Non-Glucocorticoid Receptor-mediated Effects of the Potent Glucocorticoid Deacetylcortivazol, 2110

- Harris, A. L. See Smith, Harris, Morgan, Gazet, and McKinna, 3430\*\*
- Harris, A. L., Powles, T. J., and Smith, I. E. Aminoglutethimide in the Treatment of Advanced Postmenopausal Breast Cancer, 3405\*\*
- Harris, C. C. See Autrup, Grafstrom, Brugh, Lechner, Haugen, Trump, and Harris, 934; Groopman, Haugen, Goodrich, Wogan, and Harris, 3120
- Harris, L. F., Miller, L. L., and Hickok, D. F. Reactivity of Serum-armed Xenogeneic Macrophages to Breast Cancer Antigens, 4985
- Hart, I. R. See Talmadge, Donovan, and Hart, 1850
- Hartge, P., Hoover, R., Altman, R., Austin, D. F., Cantor, K. P., Child, M. A., Key, C. R., Mason, T. J., Marrett, L. D., Myers, M. H., Narayana, A. S., Silverman, D. T., Sullivan, J. W., Swanson, G. M., Thomas, D. B., and West, D. W. Use of Hair Dyes and Risk of Bladder Cancer, 4784
- Hartman, K. D. See Glazer, Hartman, and Richardson, 117
- Hartmann, A. See Rabes, Bücher, Hartmann, Linke, and Dünwald, 3220
- Hartmann, D. W. See Glode, Robinson, Hartmann, Klein, Thomas, and Morton, 4270
- Hartmann, H.-R., and Matter, A. Antiproliferative Action of a Novel Fluorinated Uridine Analog, 5'-Deoxy-5-fluorouridine, Measured *In Vitro* and *In Vivo* on Four Different Murine Tumor Lines, 2412
- Harvey, H. A. See Lipton, Harvey, and Santen, 3468\*\*; Lipton, Harvey, Santen, Boucher, White, Bernath, Dixon, Richards, and Shafik, 3434\*\*; Santen, Worgul, Samojlik, Boucher, Lipton, and Harvey, 3397\*\*; Wells, Worgul, Samojlik, Boucher, Lipton, Harvey, White, Smart, Cox, and Santen, 3454\*\*
- Harvey, H. A., Lipton, A., White, D. S., Santen, R. J., Boucher, A. E., Shafik, A. S., Dixon, R. J., and Members of The Central Pennsylvania Oncology Group Cross-Over Comparison of Tamoxifen and Aminoglutethimide in Advanced Breast Cancer, 3451\*\*
- Harvey, H. J. See MacEwen, Patnaik, Harvey, and Panko, 2255
- Hasper, F., Müller, G., and Schweizer, J. Histological, Proliferative, and Biochemical Alterations in Dorsal Epidermis of the Syrian Golden Hamster Induced by 12-O-Tetradecanoylphorbol-13-acetate and the Calcium Ionophore A 23187, page 2034
- Hass, B. S., McKeown, C. K., Sardella, D. J., Boger, E., Ghoshal, P. K., and Huberman, E. Cell-mediated Mutagenicity in Chinese Hamster V79 Cells of Dibenzopyrenes and Their Bay-Region Fluorine-substituted Derivatives, 1646
- Haugen, A. See Autrup, Grafstrom, Brugh, Lechner, Haugen, Trump, and Harris, 934; Groopman, Haugen, Goodrich, Wogan, and Harris, 3120
- Haukaas, S. A. See Bakke, Göthlin, Haukaas, and Kalland, 3880
- Haus, E. See Levi, Hrushesky, Blomquist, Lakatua, Haus, Halberg, and Kennedy, 950
- Hawkins, R. A. See Miller, Hawkins, and Forrest, 3365\*\*
- Hayata, Y. See Auer, Ono, Naselli, Caspersson, Kato, Konaka, and Hayata, 4241
- Hayward, I. P. See Parsons, Smellie, Morrison, and Hayward, 1454
- Hazlewood, C. F. See Beall, Brinkley, Chang, and Hazlewood, 4124
- Heacock, E. H. See Wang, Heacock, Onikul, Chang-xue, Young, and Mannick, 416
- Heaney-Kieras, J., and Bystry, J.-C. Identification and Purification of a M. 75,000 Cell Surface Human Melanoma-associated Antigen, 2310
- Hearst, J. E. See Varga, Wiesehahn, Bartholomew, and Hearst, 2223

- Heatfield, B. M. See Purnell, Hillman, Heatfield, and Trump, 2317
- Hebbel, R. P. See Wang, Yu, Liener, Hebbel, Eaton, and McKhann, 1046
- Heber, D. See Chlebowski and Heber, 2495
- Heber, D., Chlebowski, R. T., Ishibashi, D. E., Herrold, J. N., and Block, J. B. Abnormalities in Glucose and Protein Metabolism in Noncancerous Lung Cancer Patients, 4815
- Hecht, S. S. See El-Bayoumy and Hecht, 1243; Melikian, LaVoie, Hecht, and Hoffmann, 1239
- Heck, J. D. See Costa, Heck, and Robinson, 2757
- Hecker, L. I., and McCluskey, G. A. Comparison of the *In Vitro* Metabolism of *N*-Nitrosohexamethylenimine by Rat Liver and Lung Microsomal Fractions, 59
- Heckman, C. A. See Manger and Heckman, 4591
- Hegamyer, G. A. See Colburn, Gindhart, Hegamyer, Blumberg, Delclos, Magun, and Lockyer, 3093
- Heidelberger, C. See Billings and Heidelberger, 2692; Gehly and Heidelberger, 2697; Gehly, Landolph, Heidelberger, Nagasawa, and Little, 1866; Mulkins and Heidelberger, 956, 965; Spears, Shahinian, Moran, Heidelberger, and Corbett, 450
- Heilbrun, L. See Mower, Ichinotsubo, Wang, Mandel, Stemmermann, Nomura, Heilbrun, Kamiyama, and Shimada, 1164
- Heine, H. S. See Cha and Heine, 2609
- Heintz, R. See Iwaki, Kasai, Terasaki, Bernoco, Park, Cicciariello, Heintz, Saxton, Burk, and Morton, 409
- Helland, S., and Ueland, P. M. Inactivation of *S*-Adenosylhomocysteine Hydrolase by 9- $\beta$ -D-Arabinofuranosyladenine in Intact Cells, 1130; Reactivation of *S*-Adenosylhomocysteine Hydrolase Activity in Cells Exposed to 9- $\beta$ -D-Arabinofuranosyladenine, 2861
- Hellman, S., Moloney, W. C., and Weissner, W. A. Paradoxical Effect of Radiation on Tumor Incidence in the Rat: Implications for Radiation Therapy, 433
- Helmer, M. A. See Kefford, Helmer, and Fox, 3822
- Henderson, B. E. See Lam, Yu, I.eung, and Henderson, 5246; Preston-Martin, Yu, Benton, and Henderson, 5240
- Henderson, B. E., Ross, R. K., Pike, M. C., and Casagrande, J. T. Endogenous Hormones as a Major Factor in Human Cancer, 3232
- Henderson, I. C. See Corkery, Leonard, Henderson, Gelman, Hourihan, Ascoli, and Salhanick, 3409\*\*
- Henderson, S. D. See Kimler, Henderson, Mansfield, Svoboda, and Cheng, 2656; Stragand, Drewinko, Henderson, Grossie, Stephens, Barlogie, and Trujillo, 3111
- Hendrickson, J. R. See Brodie, Garrett, Hendrickson, and Tsai-Morris, 3360\*\*
- Hengst, J. C. D. See Mokyr, Hengst, and Dray, 974
- Henle, K. J. See Warters and Henle, 4427
- Henle, K. J., and Warters, R. L. Heat Protection by Glycerol *In Vitro*, 2171
- Hennessy, J. M. See Berkelhammer, Oxenhandler, Hook, and Hennessy, 3157
- Hennessy, W. See Pollack, Vugrin, Hennessy, Herr, Dupont, and Whitmore, 2470
- Hennings, H. See Yuspa, Ben, Hennings, and Licht, 2344; Yuspa, Spangler, Donahoe, Geusz, Ferguson, Wenk, and Hennings, 437
- Henri, A. See Testa, Henri, Betteieb, Titeux, Vainchenker, Tonhat, Dockleare, and Rochant, 4694
- Heppner, G. H. See Hager and Heppner, 4325
- Herlyn, M. See Atkinson, Ernst, Herlyn, Stepkowski, Sears, and Koprowski, 4820
- Hernandez, A. M. See Ibsen, Orlando, Garratt, Hernandez, Giorlando, and Nungaray, 888
- Herr, H. W. See Klein, Melamed, Whitmore, Herr, Sogani, and Darzynkiewicz, 1094; Pollack, Vugrin, Hennessy, Herr, Dupont, and Whitmore, 2470
- Herrick, D. J. See Major, Egan, Herrick, and Kufe, 3005
- Herrick, D. J., Major, P. P., and Kufe, D. W. Effect of Methotrexate on Incorporation and Excision of 5-Fluorouracil Residues in Human Breast Carcinoma DNA, 5015
- Herrold, J. N. See Heber, Chlebowski, Ishibashi, Herrold, and Block, 4815
- Hersey, P., Hobbs, A., Edwards, A., McCarthy, W. H., and McGovern, V. J. Relationship between Natural Killer Cell Activity and Histological Features of Lymphocyte Infiltration and Partial Regression of the Primary Tumor in Melanoma Patients, 363
- Hersh, E. M. See Lotzová, Savary, Gutterman, and Hersh, 2480
- Herz, F. See Takahara, Herz, Singer, Hirano, and Koss, 563
- Herzenberg, L. A. See Frankel, Rouse, Wang, Chu, and Herzenberg, 3714
- Heston, W. D. W. See Lazan, Heston, Kadmon, and Fair, 1390
- Hewitt, A. T. See Kimata, Foidart, Pennypacker, Kleinman, Martin, and Hewitt, 2384
- Hickie, R. A. See Wei, Morris, and Hickie, 2571
- Hickok, D. F. See Harris, Miller, and Hickok, 4985
- Hicks, R. M. See Moore, Hicks, Knowles, and Redgrave, 642
- Hida, K. See Kano, Sakamoto, Kasahara, Kusumoto, Hida, Suda, Ozawa, Miura, and Takaku, 3090
- Higashi, S. See Hosoi, Nakamura, Higashi, Yamamuro, Toyama, Shinomiya, and Mikawa, 654
- Higashiyama, T. See Osawa, Tochigi, Higashiyama, Yarborough, Nakamura, and Yamamoto, 3299\*\*
- Hikasa, Y. See Tanigawa, Kern, Hikasa, and Morton, 2159
- Hildebrand, C. E. See Tobey, Enger, Griffith, and Hildebrand, 2980
- Hiley, R. See Zurlo, Curphey, Hiley, and Longnecker, 1286
- Hilfiker, M. L. See Sando, Hilfiker, Piacentini, and Lauffer, 1676
- Hill, A., and Wolff, S. Increased Induction of Sister Chromatid Exchange by Diethylstilbestrol in Lymphocytes from Pregnant and Premenopausal Women, 893
- Hill, B. T., Whatley, S. A., Bellamy, A. S., Jenkins, L. Y., and Whelan, R. D. H. Cytotoxic Effects and Biological Activity of 2-Aza-8-germanspiro[4,5]decane-2-propanamine-8,8-diethyl-*N,N*-dimethyl Dichloride (NSC 192965; Spirogermanium) *In Vitro*, 2852
- Hill, D. L. See McCarthy, Struck, Shih, Suling, Hill, and Enke, 3475
- Hill, G. J., II See Hill and Hill, 838
- Hill, H. Z., and Hill, G. J., II Effect of Scheduling of Combinations of 5-(3,3-Dimethyl-1-triazeno)imidazole-4-carboxamide and 1-(2-Chloroethyl)-3-(4-methylcyclohexyl)-1-nitrosourea on the Harding-Passey and Cloudman S91 Mouse Melanomas, 838
- Hill, P., Wynder, E. L., Garbaczewski, L., Ganes, H., and Walker, A. R. P. Response to Luteinizing Releasing Hormone, Thyrotrophic Releasing Hormone, and Human Chorionic Gonadotropin Administration in Healthy Men at Different Risks for Prostatic Cancer and in Prostatic Cancer Patients, 2074
- Hill, P., Wynder, E. L., Garbaczewski, L., and Walker, A. R. P. Effect of Diet on Plasma and Urinary Hormones in South African Black Men with Prostatic Cancer, 3864
- Hillcoat, B. L. See Sutton, Roos, and Hillcoat, 5172
- Hillman, E. A. See Purnell, Hillman, Heatfield, and Trump, 2317
- Hillman, R. S. See Steinberg, Campbell, Bleyer, and Hillman, 1279
- Hiramatsu, Y. See Takada, Hirooka, Hiramatsu, and Yamamoto, 331
- Hiramoto, R. N. See Kikuchi, Takagi, Parmley, Ghanta, and Hiramoto, 1072
- Hirano, A. See Takahara, Herz, Singer, Hirano, and Koss, 563
- Hirooka, T. See Takada, Hirooka, Hiramatsu, and Yamamoto, 331
- Hirota, N., and Williams, G. M. Ultrastructural Abnormalities in Carcinogen-induced Hepatocellular Altered Foci Identified by Resistance to Iron Accumulation, 2298
- Hirsch, F. R. See Vindelov, Hansen, Gersel, Hirsch, and Nissen, 2499
- Hirshaut, Y. See Katopodis, Hirshaut, Geller, and Stock, 5270
- Hittelman, W. N., and Pollard, M. Induction and Repair of DNA and Chromosome Damage by Neocarzinostatin in Quiescent Normal Human Fibroblasts, 4584
- Hnilica, L. S. See Duhl, Banjar, Briggs, Page, and Hnilica, 594; Schmidt, Gronert, Page, Briggs, and Hnilica, 3164; Schmidt and Hnilica, 1441; Wojtkowiak, Duhl, Briggs, Hnilica, Stein, and Stein, 4546
- Ho, Y.-K., Mayhew, E., Preisler, H. D., and Bardos, T. J. Effects of Partially Thiolated Polycytidylic Acid and Liposomes on *In Vitro* Colony-forming Cells of Leukemic Mice, 1740
- Hoal, E., Wilson, E. L., and Dowdle, E. B. Variable Effects of Retinoids on Two Pigmenting Human Melanoma Cell Lines, 5191
- Hobbs, A. See Hersey, Hobbs, Edwards, McCarthy, and McGovern, 363
- Hobika, G. H. See Evers, Patel, Madeja, Schneider, Hobika, Camiolo, and Markus, 219
- Hockey, A. See Ramsay, Chen, Imray, Kidson, Lavin, and Hockey, 2909
- Hodgson, R. M., Schweinsberg, F., Wiessler, M., and Kleihues, P. Mechanism of Esophageal Tumor Induction in Rats by *N*-Nitrosomethylbenzylamine and Its Ring-methylated Analog *N*-Nitrosomethyl(4-methylbenzyl)amine, 2836
- Hoffman, K. S. See Spiegel, Blum, Levin, Pinto, Wernz, Speyer, Hoffman, and Muggia, 354
- Hoffman, N. See LaVoie, Bedenko, Tulley-Freiler, and Hoffmann, 4045; Melikian, LaVoie, Hecht, and Hoffmann, 1239
- Hofmans, L. See Derks, Hofmans, Bruning, and Rood, 681
- Hogan, T. F. See Borden, Hogan, and Voelkel, 4498
- Högberg, B. See Björk, Forsgren, Gustafsson, Pousette, and Högberg, 1935
- Hogue-Angellelli, R. A. See Blackburn, Schnabel, Danley, Hogue-Angellelli, and Sorof, 4664
- Hokanson, K. M. See Barranco, May, Boerwinkle, Nichols, Hokanson, Schumann, Göhde, Bryant, and Guseman, 2894; Barranco, Townsend, Costanzi, May, Baltz, O'Quinn, Leipzig, Hokanson, Guseman, and Boerwinkle, 2899
- Holcenberg, J. See Agarwal, Blatt, Miser, Sallan, Lipton, Reaman, Holcenberg, and Poplack, 3884
- Holdaway, I. M. See Benson and Holdaway, 1137
- Holland, J. F. See Jones, Holland, and Fouts, 4658
- Holland, J. F. See Ohnishi, Ohnuma, Takahashi, Scanlon, Kamen, and Holland, 1655
- Hollenberg, P. F. See Scarpelli, Kokkinakis, Rao, Subbarao, Luetke, and Hollenberg, 5089
- Holmes, W. See Gallie, Holmes, and Phillips, 301
- Holman, T. V., Phillips, T. M., Bowles, C., and Deisseroth, A. Regression of Canine Mammary Carcinoma after Immunoadsorption Therapy, 3663
- Holtzman, S., Stone, J. P., and Shellabarger, C. J. Radiation-induced Mammary Carcinogenesis in Virgin, Pregnant, Lactating, and Postlactating Rats, 50
- Honn, K. V. See Sloane, Honn, Sadler, Turner, Kimpson, and Taylor, 980
- Hood, W. F. See Covey and Hood, 3327\*\*
- Hoogstraten, B., Fletcher, W. S., Gad-el-Mawla, N., Maloney, T., Altman, S. J., Vaughn, C. B., and Foulkes, M. A. Tamoxifen and Oophorectomy in the Treatment of Recurrent Breast Cancer, 4788

- Hook, R. R., Jr. See Berkelhammer, Oxenhandler, Hook, and Hennessy, 3157
- Hoover, R. See Hartge, Hoover, Altman, Austin, Cantor, Child, Key, Mason, Marrett, Myers, Narayana, Silverman, Sullivan, Swanson, Thomas, and West, 4784
- Hori, K. See Abe, Saito, Hori, Suzuki, and Sato, 2846
- Hori, K. See Tsuruo, Hori, Iida, Tsukagoshi, and Sakurai, 2250
- Horn, Y., Beal, S. L., Walach, N., Lubich, W. P., Spiegel, L., and Marton, L. J. Further Evidence for the Use of Polyamines as Biochemical Markers for Malignant Tumors, 3248
- Hoshino, T. See Sano, Deen, and Hoshino, 1223
- Hosick, H. L. See Angello, Danielson, Anderson, and Hosick, 2207; Angello, Hosick, and Anderson, 4975
- Hosoi, S., Nakamura, T., Higashi, S., Yamamuro, T., Toyama, S., Shinomiya, K., and Mikawa, H. Detection of Human Osteosarcoma-associated Antigen(s) by Monoclonal Antibodies, 654
- Hosokawa, M. See Mizushima, Yuhki, Hosokawa, and Kobayashi, 5176
- Hosomi, J. See Kuroki, Hosomi, Munakata, Onizuka, Terauchi, and Nemoto, 1859
- Houchens, D. P. See Slagel, Feola, Houchens, and Ovejera, 812
- Houghton, J. A., Houghton, P. J., and Green, A. A. Chemotherapy of Childhood Rhabdomyosarcomas Growing as Xenografts in Immune-deprived Mice, 535
- Houghton, P. J. See Houghton, Houghton, and Green, 535
- Houriha, J. See Corkery, Leonard, Henderson, Gelman, Hourihan, Ascoli, and Salhanick, 3409\*\*
- Howatson, A. See Shibuya, Chen, Howatson, and Mak, 2722
- Howser, D. M. See Schilsky, Kelley, Ihde, Howser, Cordes, and Young, 1582
- Hrushesky, W. J. M. See Levi, Hrushesky, Blomquist, Lakatua, Haus, Halberg, and Kennedy, 950
- Hrushesky, W. J. M., Levi, F. A., Halberg, F., and Kennedy, B. J. Circadian Stage Dependence of cis-Diamminedichloroplatinum Lethal Toxicity in Rats, 945
- Hsiao, N. See Weir, Cashmore, Dreyer, Graham, Hsiao, Moroson, Sawicki, and Bertino, 1696
- Hu, F., Mah, K., and Teramura, D. J. Electron Microscopic and Cytochemical Observations of Theophylline and Melanocyte-stimulating Hormone Effects on Melanoma Cells in Culture, 2786
- Huang, C-H. See Galvan, Evans, Huang, Prestayko, Wu, and Crooke, 1555; Mirabelli, Beatrice, Huang, Prestayko, and Crooke, 1399; Mirabelli, Ting, Huang, Mong, and Crooke, 2779
- Huberman, E. See Hass, McKeown, Sardella, Boger, Ghoshal, and Huberman, 1646
- Hue, G. See Youn, Lacour, and Hue, 4706
- Hughes, C. M. See Rudland, Gusterson, Hughes, Ormerod, and Warburton, 5196
- Humphries, J. E., and Isaacs, J. T. Unusual Androgen Sensitivity of the Androgen-independent Dunning R-3327-G Rat Prostatic Adenocarcinoma: Androgen Effect on Tumor Cell Loss, 3148
- Hunt, J. M., Buckley, M. T., Onnink, P. A., Rolfe, P. B., and Laishes, B. A. Liver Cell Membrane Alloantigens as Cellular Markers in Genotypic Mosaic Rat Livers Undergoing Chemically-induced Hepatocarcinogenesis, 227
- Hunt, R. S. See Pretlow, Whitehurst, Pretlow, Hunt, Jacobs, McKenzie, McDaniel, Hall, and Bradley, 4842
- Hunter, N. See Milas, Hunter, Reid, and Thames, 1888
- Hurley, L. H. See Swenson, Li, Hurley, Rokem, Petzold, Dayton, Wallace, Lin, and Krueger, 2821
- Husby, G., Marhaug, G., and Sletten, K. Amyloid A in Systemic Amyloidosis Associated with Cancer, 1600
- Huseby, R. A., and Page, R. H. Apparent Lack of Immunogenicity of Estrogen-induced Testicular Leydig Cell Tumors in BALB/c Mice, 4332

I

- Iannaccone, P. M., Tsao, T. Y., and Stols, L. Effects on Mouse Blastocysts of *in Vitro* Exposure to Methylnitrosourea and 3-Methylcholanthrene, 864
- Ibsen, K. H., Orlando, R. A., Garratt, K. N., Hernandez, A. M., Giorlando, S., and Nungaray, G. Expression of Multimolecular Forms of Pyruvate Kinase in Normal, Benign, and Malignant Human Breast Tissue, 888
- Ichihara, A. See Williams and Ichihara, 2462
- Ichinotsubo, D. See Mower, Ichinotsubo, Wang, Mandel, Stemmermann, Nomura, Heilbrun, Kamiyama, and Shimada, 1164
- Ide, F. See Ishikawa, Kodama, Ide, and Takayama, 5216
- Ihde, D. C. See Schilsky, Kelley, Ihde, Howser, Cordes, and Young, 1582
- Iida, H. See Tsuruo, Hori, Iida, Tsukagoshi, and Sakurai, 2250; Tsuruo, Iida, Tsukagoshi, and Sakurai, 1462, 4730
- Ikenami, M. See Iwata-Dohi, Esumi-Kurusu, Ikenami, Sadatsune, Mizuno, and Yamazaki, 3196
- Ikezaki, K. See Kuwana, Akiyama, Kaneko, Ikezaki, Takaki, and Kimura, 280
- Imai, K. See Burchiel, Martin, Imai, Ferrone, and Warner, 4110; Natali, Wilson, Imai, Bigotti, and Ferrone, 583
- Imai, Y., Leung, C. K. H., Friesen, H. G., and Shiu, R. P. C. Epidermal Growth Factor Receptors and Effect of Epidermal Growth Factor on Growth of Human Breast Cancer Cells in Long-Term Tissue Culture, 4394
- Imaida, K. See Cameron, Imaida, Tsuda, and Ito, 2426
- Imokawa, G., and Mishima, Y. Loss of Melanogenic Properties in Tyrosinases Induced by Glycosylation Inhibitors within Malignant Melanoma Cells, 1994
- Imray, F. P. See Ramsay, Chen, Imray, Kidson, Lavin, and Hockey, 2909
- Inaba, M. See Fukui, Inaba, Tsukagoshi, and Sakurai, 1098
- Inaba, M., Fukui, M., Yoshida, N., Tsukagoshi, S., and Sakurai, Y. Collateral Sensitivity of 6-Mercaptopurine-resistant Sublines of P388 and L1210 Leukemia to the New Purine Antagonists, 5-Carbamoyl-1H-imidazole-4-yl Piperonylate and 4-Carbamoylimidazolium 5-Olate, 1103
- Ingle, J. N., Green, S. J., Ahmann, D. L., Edmonson, J. H., Nichols, W. C., Frytak, S., and Rubin, J. Progress Report on Two Clinical Trials in Women with Advanced Breast Cancer. Trial I: Tamoxifen versus Tamoxifen plus Aminoglutethimide; Trial II: Aminoglutethimide in Patients with Prior Tamoxifen Exposure, 3461\*\*
- Inoue, K. See Onoda, Morikawa, Harada, Suzuki, Inoue, and Nishigami, 2867
- Inoue, S., Brown, L., Ravindranath, Y., and Ottenbreit, M. J. Normal Sister Chromatid Exchange Frequency in Long-Term Survivors with Acute Leukemia, 2906
- International Agency for Research on Cancer/International Programme on Chemical Safety-Working Group. See Montesano, Rajewsky, Pegg, and Miller, 5236
- Ioachim, H. L. See Cronin, Dorsett, and Ioachim, 292
- Ioannou, Y. M., Wilson, A. G. E., and Anderson, M. W. Effect of Butylated Hydroxyanisole,  $\alpha$ -Angelic Lactone, and  $\beta$ -Naphthoflavone on Benzo(a)pyrene:DNA Adduct Formation *in Vivo* in the Forestomach, Lung, and Liver of Mice, 1199

- Ip, C. See Wagner, Naylor, Kim, Shea, Ip, and Ip, 1266
- Ip, M. M. See Wagner, Naylor, Kim, Shea, Ip, and Ip, 1266
- Irvin, G. L. See Pollack, Irvin, Block, Lipton, Stover, and Clafin, 2184
- Irwin, D. See Rivest, Irwin, and Mandel, 4039
- Isaacs, J. T. Hormonally Responsive versus Unresponsive Progression of Prostatic Cancer to Antiandrogen Therapy as Studied with the Dunning R-3327-AT and -G Rat Adenocarcinomas, 5010. See also Humphries and Isaacs, 3148; Wake, Isaacs, and Sandberg, 4131
- Isaacs, J. T., Wake, N., Coffey, D. S., and Sandberg, A. A. Genetic Instability Coupled to Clonal Selection as a Mechanism for Tumor Progression in the Dunning R-3327 Rat Prostatic Adenocarcinoma System, 2353
- Ishibashi, D. E. See Heber, Chlebowski, Ishibashi, Herrold, and Block, 4815
- Ishida, A. See Mizuno and Ishida, 4726
- Ishida, R., and Buchwald, M. Susceptibility of Fanconi's Anemia Lymphoblasts to DNA-cross-linking and Alkylating Agents, 4000
- Ishii, D. N. Effect of the Suspected Tumor Promoters Saccharin, Cyclamate, and Phenol on Nerve Growth Factor Binding and Response in Cultured Embryonic Chick Ganglia, 429. See also Spinelli, Sonnenfeld, and Ishii, 5067
- Ishii, M. See Nakadate, Yamamoto, Ishii, and Kato, 2841
- Ishikawa, T., Kodama, K., Ide, F., and Takayama, S. Demonstration of *in Vivo* DNA Repair Synthesis in Mouse Skin Exposed to Various Chemical Carcinogens, 5216
- Israel, E. See Weinberg, Israel, and Yu, 1669
- Israel, L., Samak, R., Edelstein, R., Amouroux, J., Battesti, J.-P., and de Saint Florent, G. *In Vivo* Nonspecific Macrophage Chemotaxis in Cancer Patients and Its Correlation with Extent of Disease, Regional Lymph Node Status, and Disease-free Survival, 2489
- Issell, B. F. See Comis, Issell, Pittman, Ginsberg, Rudolph, Aust, DiFino, Tinsley, Poiesz, and Crooke, 2944
- Ito, H. See Tahara, Shimamoto, Taniyama, Ito, Kosako, and Sumiyoshi, 1781
- Ito, N. See Cameron, Imaida, Tsuda, and Ito, 2426; Takano, Shirai, Ogiso, Tsuda, Baba, and Ito, 4236
- Ito, Y. See Nakao, Matsuda, Fujita, Watanabe, Morikawa, Saita, and Ito, 3843
- Iwaki, Y., Kasai, M., Terasaki, P. I., Bernoco, D., Park, M. S., Ciciarelli, J., Heintz, R., Saxton, R. E., Burk, M. W., and Morton, D. L. Monoclonal Antibody against A<sub>1</sub> Lewis x Antigen Produced by the Hybridoma Immunized with a Pulmonary Carcinoma, 409
- Iwanaga, T. See Furukawa, Iwanaga, Koyama, and Taniguchi, 5181
- Iwata-Dohi, N., Esumi-Kurusu, M., Ikenami, M., Sadatsune, K., Mizuno, D., and Yamazaki, M. Enhanced Susceptibility of Glutaraldehyde-treated Tumor Cells to Antibody-dependent Macrophage-mediated Cytotoxicity, 3196
- Iype, P. T., Ray-Chaudhuri, R., Lijinsky, W., and Kelley, S. P. Inability of Methapyrilene to Induce Sister Chromatid Exchanges *in Vitro* and *in Vivo*, 4614

J

- Jackson, C. D. See Beland, Dooley, and Jackson, 1348
- Jacobs, J. M. See Pretlow, Whitehurst, Pretlow, Hunt, Jacobs, McKenzie, McDaniel, Hall, and Bradley, 4842
- Jacquemin, P. C. Expression of Type C Viral Glycoproteins on P815 Cells: Higher Expression of M, 70,000 Glycoprotein-containing Glycoprotein on Immunogenic Variants, 3828



- Jaenke, R. S. See Dalbow and Jaenke, 79
- Jaffe, E. S., See Fisher, Silver, Vanhaelen, Jaffe, and Cossman, 2465
- Jaffray, P. See Ronot, Adolphe, Kuch, Jaffray, Lechat, and Deysson, 3193
- Jähde, E., and Rajewsky, M. F. Tumor-selective Modification of Cellular Microenvironment *in Vivo*: Effect of Glucose Infusion on the pH in Normal and Malignant Rat Tissues, 1505
- Jähde, E., Rajewsky, M. F., and Baumgärtel, H. pH Distributions in Transplanted Neural Tumors and Normal Tissues of BDIX Rats as Measured with pH Microelectrodes, 1498
- James, K. See Deodhar, James, Chiang, Edinger, and Barna, 5084
- Jamieson, G. A. See Bastida, Ordinas, Giardina, and Jamieson, 4348
- Jarvis, S. M., Chapman, J. D., Ngan-Lee, J., Rutledge, K. A., Barr, P. J., and Paterson, A. R. P. Azomycin Riboside, a Sugar Homologue of Mionidazole with Favorable Radiosensitizing Properties, 4358
- Jaspers, N. G. J., de Wit, J., Regulski, M. R., and Bootsma, D. Abnormal Regulation of DNA Replication and Increased Lethality in Ataxia Telangiectasia Cells Exposed to Carcinogenic Agents, 335
- Jeannin, J. F. See Martin, Caignard, Olsson, Jeannin, and Leclerc, 3851
- Jefferson, L. S. See Witkoski, Kepner, Leitzel, Rogers, Jefferson, and Lipton, 2350
- Jeffrey, A. M. See Kinoshita, Konieczny, Santella, and Jeffrey, 4032
- Jelliffe, D. B. See Neumann, Jelliffe, Zerfas, and Jelliffe, 699\*
- Jelliffe, E. F. P. See Neumann, Jelliffe, Zerfas, and Jelliffe, 699\*
- Jenkins, J. See Kerr, Lippman, Jenkins, and Myers, 2069; Ozols, Young, Speyer, Sugarbaker, Greene, Jenkins, and Myers, 4265
- Jenkins, L. Y. See Hill, Whately, Bellamy, Jenkins, and Whelan, 2852
- Jenkins, S. F. See Meyn, Jenkins, and Thompson, 3106
- Jensen, F. C. See Baird, Beattie, Lannom, Lipsick, Jensen, and Kaplan, 198
- Jerina, D. M. See Buhler, Unlu, Thakker, Slaga, Newman, Levin, Conney, and Jerina, 4779; Chang, Levin, Wood, Lehr, Kumar, Yagi, Jerina, and Conney, 25; Wood, Chang, Levin, Yagi, Tada, Vyas, Jerina, and Conney, 2972
- Jirtle, R. L. See Kaelin, Shrivastav, Shand, and Jirtle, 3944; Michalopoulos, Cianciulli, Novotny, Kligerman, Strom, and Jirtle, 4673
- Jirtle, R. L., and Michalopoulos, G. Effects of Partial Hepatectomy on Transplanted Hepatocytes, 3000
- Johnson, E. F. See Dees, Masters, Muller-Eberhard, and Johnson, 1423; Norman, Muller-Eberhard, and Johnson, 1722
- Johnson, F. M. See Berns, Dahlman, Johnson, Burns, Sperling, Guiltinan, Siemens, Walter, Wright, Hammer-Wilson, and Wile, 2325
- Jolly, G. A. See Dexter, Matook, Meitner, Boogaars, Jolly, Turner, and Calabresi, 2705
- Jones, K. G., Holland, J. F., and Fouts, J. R. Benzo(a)pyrene Hydroxylase Activity in Enriched Populations of Clara Cells and Alveolar Type II Cells from Control and  $\beta$ -Naphthoflavone-pretreated Rats, 4658
- Jones, P. A. See Benedict, Wheatley, and Jones, 1041; Landolph and Jones, 817
- Jones, T. R., Ruoslahti, E., Schold, S. C., and Bigner, D. D. Fibronectin and Glial Fibrillary Acidic Protein Expression in Normal Human Brain and Anaplastic Human Gliomas, 168
- Joseph, P. D., Mason, R. P., and Eling, T. Cooxidation of the Clinical Reagent 3,5,3',5'-Tetramethylbenzidine by Prostaglandin Synthase, 2567
- Jothy, S. See Brenner, Jothy, Shuster, and Fuks, 3187
- Joubert, S. M. See Pegoraro, Nirmul, and Joubert,

- 4812
- Juckett, D. A., and Rosenberg, B. Actions of *cis*-Diamminedichloroplatinum on Cell Surface Nucleic Acids in Cancer Cells as Determined by Cell Electrophoresis Techniques, 3565
- Judd, H. L., Barone, R. M., Laufer, L. R., Gambone, J. C., Monfort, S. L., and Lasley, B. L. *In Vivo* Effects of  $\Delta^1$ -Testolactone on Peripheral Aromatization, 3345\*
- Julius, A. D. See Birt, Lawson, Julius, Runice, and Salmasi, 4455
- Jungmann, R. A. See Mednieks, Jungmann, and DeWys, 2742

# K

- Kabaceni, A. K. See Rapaport, Schroder, Kabaceni, and Black, 4918
- Kadlubar, F. See Frederick, Mays, Ziegler, Guengerich, and Kadlubar, 2671; Martin, Beland, Roth, and Kadlubar, 2678
- Kadmon, D. See Lazan, Heston, Kadmon, and Fair, 1390
- Kaelin, W. G., Jr., Shrivastav, S., Shand, D. G., and Jirtle, R. L. Effect of Verapamil on Malignant Tissue Blood Flow in SMT-2A Tumor-bearing Rats, 3944
- Kajiyama, M. See Takada, Noguchi, Okabe, and Kajiyama, 4233
- Kakunaga, T. See Lo and Kakunaga, 2644
- Kalland, T. See Bakke, Göthlin, Haukaas, and Kalland, 3880
- Kamataki, T. See Yoshizawa, Uchimar, Kamataki, Kato, and Ueno, 1120
- Kamen, B. A. See Ohnishi, Ohnuma, Takahashi, Scanlon, Kamen, and Holland, 1655
- Kamiyama, S. See Mower, Ichinotsubo, Wang, Mandel, Stemmermann, Nomura, Heilbrun, Kamiyama, and Shimada, 1164
- Kamura, T., Nielsen, O. S., Overgaard, J., and Andersen, A. H. Development of Thermotolerance during Fractionated Hyperthermia in a Solid Tumor *in Vivo*, 1744
- Kanatani, M. See Kojima, Nakamura, Kanatani, and Akiyama, 2857
- Kaneko, A. See Yokoyama, Kaneko, Dempo, Chisaka, Mori, and Onoe, 4158
- Kaneko, M. See Kuwano, Akiyama, Kaneko, Ikezaki, Takaki, and Kimura, 280
- Kaneko, Y., Rowley, J. D., Variakojis, D., Chilcote, R. R., Check, I., and Sakurai, M. Correlation of Karyotype with Clinical Features in Acute Lymphoblastic Leukemia, 2918
- Kannagi, R., Levine, P., Watanabe, K., and Hakomori, S. Recent Studies of Glycolipid and Glycoprotein Profiles and Characterization of the Major Glycolipid Antigen in Gastric Cancer of a Patient of Blood Group Genotype  $pp(T_1^{a-})$  First Studied in 1951, page 5249
- Kannan, R. See Lyon, Kannan, Oookhtens, and Baker, 132
- Kano, Y., Sakamoto, S., Kasahara, T., Kusumoto, K., Hida, K., Suda, K., Ozawa, K., Miura, Y., and Takaku, F. Methionine Dependency of Cell Growth in Normal and Malignant Hematopoietic Cells, 3090
- Kaplan, A. M. See Connolly, Armstrong, Diasio, and Kaplan, 4927; Connolly and Kaplan, 2198
- Kaplan, H. G. See Wiemann, Cummings, Kaplan, Spremulli, Doolittle, and Calabresi, 3896
- Kaplan, H. S. See Fischinger, Thiel, Lieberman, Kaplan, Dunlop, and Robey, 4650
- Kaplan, N. O. See Baird, Beattie, Lannom, Lipsick, Jensen, and Kaplan, 198; Zirvi, van der Bosch, and Kaplan, 3793
- Kaplan, R. S., Morris, H. P., and Coleman, P. S. Kinetic Characteristics of Citrate Influx and Efflux with Mitochondria from Morris Hepatomas 3924A and 16, page 4399
- Kapuscinski, J. See Darzynkiewicz, Traganos, Staiano-Coico, Kapuscinski, and Melamed, 799

- Karlberg, I., Ekman, L., Edström, S., Scherstén, T., and Lundholm, K. Reutilization of Amino Acid Carbons in Relation to Albumin Turnover in Nongrowing Mice with Sarcoma, 2284
- Kasahara, T. See Kano, Sakamoto, Kasahara, Kusumoto, Hida, Suda, Ozawa, Miura, and Takaku, 3090
- Kasai, M. See Iwaki, Kasai, Terasaki, Bernoco, Park, Cicciarelli, Heintz, Saxton, Burk, and Morton, 409
- Kato, H. See Auer, Ono, Nasiehl, Caspersson, Kato, Konaka, and Hayata, 4241
- Kato, H. See Shionoya, Arai, Koyanagi, Ohtake, Kobayashi, Kodama, Kato, Tung, and Lin, 2872
- Kato, R. See Nakadate, Yamamoto, Ishii, and Kato, 2841; Yoshizawa, Uchimar, Kamataki, Kato, and Ueno, 1120
- Katopodis, N., Hirshaut, Y., Geller, N. L., and Stock, C. C. Lipid-associated Sialic Acid Test for the Detection of Human Cancer, 5270
- Katzenellenbogen, B. S. See Eckert and Katzenellenbogen, 139
- Kauffman, F. C. See Reinke, McManus, Kauffman, and Thurman, 1681
- Kaufmann, M. See Abel and Kaufmann, 1610
- Kawaguchi, T. See Miner, Kawaguchi, Uba, and Nicolson, 4631
- Kawamura, I., Moldawer, L. L., Keenan, R. A., Batist, G., Bothe, A., Jr., Bistrian, B. R., and Blackburn, G. L. Altered Amino Acid Kinetics in Rats with Progressive Tumor Growth, 824
- Kaye, S. B., Woods, R. L., Fox, R. M., Coates, A. S., and Tattersall, M. H. N. Use of Aminoglutethimide as Second-Line Endocrine Therapy in Metastatic Breast Cancer, 3445\*
- Keathley, J. D., and Needham, C. A. Analysis of the Fecal Microflora and Its Enzymatic Activity in Individuals Genetically Predisposed to Colon Cancer, 4284
- Keating, M. J. See Plunkett, Benjamin, Keating, and Freireich, 2092
- Keefe, D. A., Capizzi, R. L., and Rudnick, S. A. Methotrexate Cytotoxicity for L5178Y/Asn<sup>+</sup> Lymphoblasts: Relationship of Dose and Duration of Exposure to Tumor Cell Viability, 1641
- Keen, J. See Chang, Keen, Lane, and Taylor-Padadimitriou, 2040
- Keenan, R. A. See Kawamura, Moldawer, Keenan, Batist, Bothe, Bistrian, and Blackburn, 824
- Kefford, R. F., and Fox, R. M. Purine Deoxynucleoside Toxicity in Nondividing Human Lymphoid Cells, 324
- Kefford, R. F., Helmer, M. A., and Fox, R. M. S-Adenosylhomocysteine Hydrolase Inhibition in Deoxyadenosine-treated Human T-Lymphoblasts and Resting Peripheral Blood Lymphocytes, 3822
- Keith, D. E., Jr. See Vold, Keith, and Slavik, 5265
- Kelleher, L. E. See Sirotnak, Moccio, Goutas, Kelleher, and Montgomery, 924
- Keller, R., Aguet, M., Tovey, M., and Stitz, L. Prevention of Interferon-induced Augmentation of Cellular Antitumor Effector Mechanisms by Phorbol Esters, 1468
- Kelley, D. S. Effect of Glucagon on Amino Acid Transport and Cyclic Adenosine 3':5'-Monophosphate Production in Rat Hepatoma Cell Line McA-RH 8994 in Culture, 3116
- Kelley, J. A. See Schilsky, Kelley, Ihde, Howser, Cordes, and Young, 1582
- Kelley, S. See Lee, Kelley, Chiu, and Stebbing, 1312
- Kelley, S. P. See Iype, Ray-Chaudhuri, Lijinsky, and Kelley, 4614
- Kelsen, D. P., Scher, H., Alcock, N., Leyland-Jones, B., Donner, A., Williams, L., Greene, G., Burchenal, J. H., Tan, C., Philips, F. S., and Young, C. W. Phase I Clinical Trial and Pharmacokinetics of 4' Carboxyphthalato(1,2-diaminocyclohexane)platinum(II), 4831
- Keng, P. C. See Bauer, Keng, and Sutherland, 72

- Kennedy, A. R.** See Shami, Thibodeau, Kennedy, and Little, 1405
- Kennedy, B. J.** See Hrushesky, Levi, Halberg, and Kennedy, 945; Levi, Hrushesky, Blomquist, Lakatua, Haus, Halberg, and Kennedy, 950; Vogelzang, Lange, Goldman, Vessella, Fraley, and Kennedy, 4855
- Kenney, F. T.** See Perry, Kulkarni, Lee, and Kenney, 473
- Kepner, N. J.** See Witkoski, Kepner, Leitzel, Rogers, Jefferson, and Lipton, 2350
- Kerler, R.** See Rabes, Wilhelm, Kerler, and Rode, 3814
- Kern, D. H.** See Tanigawa, Kern, Hikasa, and Morton, 2159
- Kerr, I. G., Lippman, M. E., Jenkins, J., and Myers, C. E.** Pharmacology of 13-*cis*-Retinoic Acid in Humans, 2069
- Kerrigan, D.** See Zwelling, Kerrigan, and Michaels, 2687
- Keski-Oja, J.** See Rapp and Keski-Oja, 2407
- Keski-Oja, J., Gahmberg, C. G., and Alitalo, K.** Pericellular Matrix and Cell Surface Glycoproteins of Virus-transformed Mouse Epithelial Cells, 1147
- Kessel, D.** Components of Hematoporphyrin Derivatives and Their Tumor-Localizing Capacity, 1703
- Key, C. R.** See Hartge, Hoover, Altman, Austin, Cantor, Child, Key, Mason, Marrett, Myers, Narayana, Silverman, Sullivan, Swanson, Thomas, and West, 4784
- Kiang, D. T.** See Abul-Hajj and Kiang, 3510
- Kidson, C.** See Ramsay, Chen, Imray, Kidson, Lavin, and Hockey, 2909
- Kidwell, W. R.** See Zwiebel, Davis, Kohn, Salomon, and Kidwell, 5117
- Kikuchi, Y., Takagi, M., Parmley, R. T., Ghanta, V. K., and Hiramoto, R. N.** Inhibitory Effect of L-Homoarginine on Murine Osteosarcoma Cell Proliferation, 1072
- Killinger, D. W.** See Perel, Blackstein, and Killinger, 3369\*\*
- Killion, J. J., and Brandt, A. E.** Correspondence re: J. H. Pincus, A. K. Jameson, and A. E. Brandt, Immunotherapy of L1210 Leukemia Using Neuraminidase-modified Plasma Membranes Combined with Chemotherapy, 4263, Letter to the Editor
- Kim, H.** See Yoo, Kuo, Spector, Denning, Floyd, Whiteaker, Kim, Kim, Abbas, and Budd, 3596
- Kim, J.** See Yoo, Kuo, Spector, Denning, Floyd, Whiteaker, Kim, Kim, Abbas, and Budd, 3596
- Kim, U.** See Wagner, Naylor, Kim, Shea, Ip, and Ip, 1266
- Kim, Y. S.** See Morita, Tsao, and Kim, 4540; Tsao, Morita, Bella, Luu, and Kim, 1052
- Kimata, K., Foidart, J.-M., Pennypacker, J. P., Kleinman, H. K., Martin, G. R., and Hewitt, A. T.** Immunofluorescence Localization of Fibronectin in Chondrosarcoma Cartilage Matrix, 2384
- Kimler, B. F., and Cheng, C. C.** Comparison of the Effects of Dihydroxyanthraquinone and Adriamycin on the Survival of Cultured Chinese Hamster Cells, 3631
- Kimler, B. F., Henderson, S. D., Mansfield, C. M., Svoboda, D. J., and Cheng, C. C.** Effect of Dihydroxyanthraquinone (NSC 279836) and Thoracic Irradiation on Long-Term Survival of Rats, 2656
- Kimpson, J. J.** See Sloane, Honn, Sadler, Turner, Kimpson, and Taylor, 980
- Kimura, G.** See Kuwano, Akiyama, Kaneko, Ikezaki, Takaki, and Kimura, 280
- Kinahan, J.** See Bruno, Grindley, Zakrzewski, Priore, Kinahan, Moayeri, Ledesma, Mittelman, and Creaven, 4824
- Kinoshita, T., Konieczny, M., Santella, R., and Jeffrey, A. M.** Metabolism and Covalent Binding to DNA of 7-Methylbenzo(a)pyrene, 4032
- Kinsella, T. J., Mitchell, J. B., McPherson, S., Russo, A., and Tietze, F.** *In Vitro* X-Ray Sensitivity in Ataxia Telangiectasia Homozygote and Heterozygote Skin Fibroblasts under Oxidative and Hypoxic Conditions, 3950
- Kirk, M. C.** See Tong, Kirk, and Ludlum, 3102
- Kirschner, M. A.** See Samojlik, Santen, Kirschner, and Ertel, 3349\*\*
- Kirschner, M. A., Schneider, G., Ertel, N. H., and Worton, E.** Obesity, Androgens, Estrogens, and Cancer Risk, 3281\*\*
- Kirsh, R.** See Fidler, Barnes, Fogler, Kirsh, Bugelski, and Poste, 496; Poste, Bucana, Raz, Bugelski, Kirsh, and Fidler, 1412
- Kitagawa, T.** See Fujiwara, Saikusa, Yasuno, and Kitagawa, 1487
- Kitahara, T.** See Kurihara, Ogawa, Ohta, Kurokawa, Kitahara, Kosaki, Watanabe, and Wada, 4836
- Kitamura, Y.** See Yokoyama, Kitamura, Kohrogi, and Miyoshi, 3806
- Kleihiues, P.** See Hodgson, Schweinsberg, Wiesler, and Kleihiues, 2836
- Klein, F. A., Melamed, M. R., Whitmore, W. F., Jr., Herr, H. W., Sogani, P. C., and Darzynkiewicz, Z.** Characterization of Bladder Papilloma by Two-Parameter DNA-RNA Flow Cytometry, 1094
- Klein, G.** See Baldwin and Klein, 1608
- Klein, J. J.** See Glode, Robinson, Hartmann, Klein, Thomas, and Morton, 4270
- Klein, K.** See Coetzee, Short, Klein, and Ove, 155
- Klein, L.** See Shively, Spayth, Chang, Metter, Klein, Present, and Todd, 2506
- Kleinerman, E. S., Zwelling, L. A., Schwartz, R., and Muchmore, A. V.** Effect of L-Phenylalanine Mustard, Adriamycin, Actinomycin D, and 4'-(9-Acridinylamino)methanesulfon-*m*-aniside on Naturally Occurring Human Spontaneous Monocyte-mediated Cytotoxicity, 1692
- Kleinman, H. K.** See Kimata, Foidart, Pennypacker, Kleinman, Martin, and Hewitt, 2384
- Kligerman, A. D.** See Michalopoulos, Cianciulli, Novotny, Kligerman, Strom, and Jirtle, 4673
- Kline, K.** See Nelson, Allison, Kline, and Sanders, 4625; Sanders, Allison, and Kline, 4532
- Klinger, M. M.** See Morton, Klinger, and Steiner, 3022
- Klos, D. J.** See Fernandez-Pol, Hamilton, and Klos, 609
- Klotz, J. L.** See Chee, Yonemoto, Leong, Richards, Smith, Klotz, Goto, Gascon, and Drushella, 3142
- Knowles, M. A.** See Moore, Hicks, Knowles, and Redgrave, 642
- Kobata, A.** See Shiraishi, Yoshima, Maeda, Mizoguchi, Matsumoto, Sugiyama, and Kobata, 2884
- Kobayashi, H.** See Mizushima, Yuhki, Hosokawa, and Kobayashi, 5176; Shionoya, Arai, Koyanagi, Ohtake, Kobayashi, Kodama, Kato, Tung, and Lin, 2872
- Kobayashi, Y.** See Tsuchiya, Kobayashi, Goto, Okumura, Nakae, Konno, and Tada, 1530
- Kobrin, D.** See Augenlicht and Kobrin, 1088
- Kodama, H.-a.** See Koyama and Kodama, 4210
- Kodama, K.** See Ishikawa, Kodama, Ide, and Takayama, 5216
- Kodama, T.** See Shionoya, Arai, Koyanagi, Ohtake, Kobayashi, Kodama, Kato, Tung, and Lin, 2872
- Koeller, J. M.** See Earhart, Tutsch, Koeller, Rodriguez, Robins, Vogel, Davis, and Tormey, 5255
- Koestner, A.** See Vinorello and Koestner, 1038
- Koga, Y.** See Matsuo, Kuroki, Koga, Kuriyama, Mori, and Kosaki, 2012
- Kohn, E.** See Zwiebel, Davis, Kohn, Salomon, and Kidwell, 5117
- Kohn, K. W.** See Ducore, Erickson, Zwelling, Laurent, and Kohn, 897; Tong, Kohn, and Ludlum, 4460
- Kohrogi, T.** See Yokoyama, Kitamura, Kohrogi, and Miyoshi, 3806
- Koike, S.** See Todoroki, Koike, Tsunemoto, and Watanabe, 5231
- Kojima, J., Nakamura, N., Kanatani, M., and Akiyama, M.** Glycosaminoglycans in 3'-Methyl-4-dimethylaminoazobenzene-induced Rat Hepatic Cancer, 2857
- Kokkinakis, D. M.** See Scarpelli, Kokkinakis, Rao, Subbarao, Luetkecke, and Hollenberger, 5089
- Kokoska, S.** See Thompson, Meeker, Becci, and Kokoska, 4954
- Kolar, G.** See Malaveille, Brun, Kolar, and Bartsch, 1446
- Komazaki, S.** See Asashima, Komazaki, Satou, and Oinuma, 3741
- Komorika, A.** See Anzano, Roberts, Meyers, Komorika, Lamb, Smith, and Sporn, 4776
- Konaka, C.** See Auer, Ono, Naselli, Caspersson, Kato, Konaka, and Hayata, 4241
- Kondo, Y., and Ohsawa, N.** Production of Human  $\alpha_1$ -Antichymotrypsin-like Protein by a Human Malignant Melanoma Transplanted into Nude Mice, 1549
- Konieczny, M.** See Kinoshita, Konieczny, Santella, and Jeffrey, 4032
- Konno, T.** See Tsuchiya, Kobayashi, Goto, Okumura, Nakae, Konno, and Tada, 1530
- Koo, P. H.** Characterization of Growth-inhibitory Activities Associated with an  $\alpha$ -Macroglobulin of Mice, 1788
- Koprowski, H.** See Atkinson, Ernst, Herlyn, Steplewski, Sears, and Koprowski, 4820; Mazauric, Mitchell, Letchworth, Koprowski, and Steplewski, 150
- Kosaki, G.** See Kurihara, Ogawa, Ohta, Kurokawa, Kitahara, Kosaki, Watanabe, and Wada, 4836; Matsuo, Kuroki, Koga, Kuriyama, Mori, and Kosaki, 2012
- Kosako, Y.** See Tahara, Shimamoto, Taniyama, Ito, Kosako, and Sumiyoshi, 1781
- Koss, B., and Greengard, O.** Effect of Neoplasms on the Content and Activity of Alkaline Phosphatase and  $\gamma$ -Glutamyl Transpeptidase in Uninvolved Host Tissues, 2146
- Koss, L. G.** See Takahara, Herz, Singer, Hirano, and Koss, 563
- Kotch, J. P.** See Sterling, DiPetrillo, Kotch, and Cutroneo, 3502
- Kouri, R. E., McKinney, C. E., Slomiany, D. J., Snodgrass, D. R., Wray, N. P., and McLemore, T. L.** Positive Correlation between High Aryl Hydrocarbon Hydroxylase Activity and Primary Lung Cancer as Analyzed in Cryopreserved Lymphocytes, 5030
- Kovacs, K.** See See, Sun, McComb, Gerrie, and Kovacs, 2336
- Kovnat, A., Armitage, M., and Tannock, I.** Xenografts of Human Bladder Cancer in Immune-deprived Mice, 3696
- Koyama, H.** See Furukawa, Iwanaga, Koyama, and Taniguchi, 5181
- Koyama, H., and Kodama, H.-a.** Adenine Phosphoribosyltransferase Deficiency in Cultured Mouse Mammary Tumor FM3A Cells Resistant to 4-Carbamoylimidazole 5-Olate, 4210
- Koyama, S., Yoshioka, T., and Sakita, T.** Suppression of Cell-mediated Antitumor Immunity by Complete Freund's Adjuvant, 3215
- Koyanagi, N.** See Shionoya, Arai, Koyanagi, Ohtake, Kobayashi, Kodama, Kato, Tung, and Lin, 2872
- Kozlowski, P. L., Claflin, A. J., Fletcher, M. A., McKinney, E. C., and Rubin, R. W.** Two-Dimensional Gel Electrophoresis of Membrane Proteins from the R3327 Prostate Adenocarcinoma, 2748
- Krause-Leipholt, D.** See Krieg, Krause-Leipholt, Wayss, and Volm, 1986
- Kraybill, W.** See Tong, Vandenbark, Kraybill, Vetto, and Burger, 2949
- Kreider, J. W.** See Boyer, Kreider, and Bartlett, 2211
- Kreis, W., Arlin, Z., Yagoda, A., Leyland-Jones, B. R., and Fiori, L.** Deoxycytidine and Deoxythymidine Kinase Activities in Plasma of Mice



- and Patients with Neoplastic Disease, 2514
- Krieg, L., Krause-Leipholdt, D., Wayss, K., and Volm, M.** Polysomal Polyadenylated RNA and Albumin Messenger RNA in *Mastomys* Liver and in a Chemically Induced Hepatocellular Carcinoma, 1986
- Krishnan, A.** See Gupta and Krishan, 1005; Rubin, Quillen, Corcoran, Ganapathi, and Krishan, 1384
- Krueger, W. C.** See Li, Swenson, Schpok, Kuentzel, Dayton, and Krueger, 999; Swenson, Li, Hurley, Rokem, Petzold, Dayton, Wallace, Lin, and Krueger, 2821
- Kuch, D.** See Ronot, Adolphe, Kuch, Jaffray, Lechat, and Deysson, 3193
- Kuentzel, S. L.** See Li, Swenson, Schpok, Kuentzel, Dayton, and Krueger, 999
- Kuenzel, W. J.** See Robey, Kuenzel, Vande Woude, and Fischinger, 2523
- Kufe, D. W.** See Fram and Kufe, 4050; Herrick, Major, and Kufe, 5015; Major, Egan, Herrick, and Kufe, 3005; Weiss, McGovern, Schade, and Kufe, 3892
- Kuhlmann, E. T.** See Longnecker, Curphey, Kuhlmann, and Roebuck, 19
- Kulkarni, M. S., Cox, B. A., and Yielding, K. L.** Requirements for Induction of DNA Strand Breaks by Lithocholic Acid, 2792
- Kulkarni, S. B.** See Perry, Kulkarni, Lee, and Kenney, 473
- Kumar, S.** See Chang, Levin, Wood, Lehr, Kumar, Yagi, Jerina, and Conney, 25
- Kuo, A. L.** See Cossu, Kuo, Pessano, Warren, and Cooper, 484
- Kuo, C.-Y.** See Yoo, Kuo, Spector, Denning, Floyd, Whiteaker, Kim, Kim, Abbas, and Budd, 3596
- Kurihara, M., Ogawa, M., Ohta, T., Kurokawa, E., Kitahara, T., Kosaki, G., Watanabe, T., and Wada, H.** Purification and Immunological Characterization of Human Pancreatic Ribonuclease, 4836
- Kuriyama, H.** See Matsuoka, Kuroki, Koga, Kuriyama, Mori, and Kosaki, 2012
- Kuroda, R.** See Neidle, Subbiah, Kuroda, and Cooper, 3766
- Kurokawa, E.** See Kurihara, Ogawa, Ohta, Kurokawa, Kitahara, Kosaki, Watanabe, and Wada, 4836
- Kuroki, M.** See Matsuoka, Kuroki, Koga, Kuriyama, Mori, and Kosaki, 2012
- Kuroki, T., Hosomi, J., Munakata, K., Onizuka, T., Terauchi, M., and Nemoto, N.** Metabolism of Benzo(a)pyrene in Epidermal Keratinocytes and Dermal Fibroblasts of Humans and Mice with Reference to Variation among Species, Individuals, and Cell Types, 1859
- Kurz, P.** See Schacter and Kurz, 3557
- Kusumoto, K.** See Kano, Sakamoto, Kasahara, Kusumoto, Hida, Suda, Ozawa, Miura, and Takaku, 3090
- Kuwano, M., Akiyama, S.-i., Kaneko, M., Ikezaki, K., Takaki, R., and Kimura, G.** Differential Effect of Imidazole Antibiotics on Untransformed and Virus-transformed Rat Cell Lines, 280
- Kuwata, T.** See Fuse, Mahmud, and Kuwata, 3209
- Kwong, C. H., and Mueller, G. C.** Antagonism of Concanavalin A Capping in Phorbol Ester-activated Lymphocytes by Calmodulin Inhibitors and Certain Amino Acid Esters, 2115
- Kyrtopoulos, S. A., Hadjiloucas, E., and Vrotsou, B.** Nondetection of O<sup>6</sup>-Methylguanine in Rat DNA following *in Vivo* Treatment with Large Doses of Cimetidine Alone or in Combination with Sodium Nitrite, 1962
- L**
- Labois, C. L., Augeron, C., Couturier-Turpin, M.-H., Gespach, C., Cheret, A.-M., and Potet, F.** Characterization of a Newly Established Human Gastric Cancer Cell Line HGT-1 Bearing Histamine H<sub>2</sub>-Receptors, 1541
- Labuc, G. E., and Archer, M. C.** Esophageal and Hepatic Microsomal Metabolism of N-Nitrosomethylbenzylamine and N-Nitrosodimethylamine in the Rat, 3181
- Lacour, F.** See Youn, Lacour, and Hue, 4706
- Ladaga, L. E.** See Starling, Wright, Beckett, Schellhammer, Ladaga, and Wright, 3084
- Laharrague, P.** See Corberand, Benchebroun, Nguyen, Laharrague, and Pris, 1595
- Laishes, B. A.** See Campbell, Pitot, Potter, and Laishes, 465; Hunt, Buckley, Onnick, Rolfe, and Laishes, 227; Poirier, True, and Laishes, 1317
- Laissue, J. A., Burki, H., and Berchtold, W.** Survival of Tumor-bearing Mice Exposed to Heavy Water or Heavy Water plus Methotrexate, 1125
- Lakata, D. J.** See Levi, Hrushesky, Blomquist, Lakata, Haus, Halberg, and Kennedy, 950
- Lake, B. G.** See Phillips, Bex, Lake, Cottrell, and Gangolli, 3761
- Lalwani, N. D.** See Reddy, Lalwani, Reddy, and Qureshi, 259
- Lam, K. C., Yu, M. C., Leung, J. W. C., and Henderson, B. E.** Hepatitis B Virus and Cigarette Smoking: Risk Factors for Hepatocellular Carcinoma in Hong Kong, 5246
- Lam, L. K. T., Sparrins, V. L., and Wattenberg, L. W.** Isolation and Identification of Kahwool Palmitate and Cafestol Palmitate as Active Constituents of Green Coffee Beans that Enhance Glutathione S-Transferase Activity in the Mouse, 1193
- Lamb, L. C.** See Anzano, Roberts, Meyers, Komoriya, Lamb, Smith, and Sporn, 4776
- Lambertenghi-DeIilliers, G.** See Monaco, Vigneti, Lancieri, Cornaglia-Ferraris, Lambertenghi-DeIilliers, and Rovoltella, 4182
- Lamm, D. L.** See Shain, Gorelick, Boesel, Radwin, and Lamm, 4849
- Lancieri, M.** See Monaco, Vigneti, Lancieri, Cornaglia-Ferraris, Lambertenghi-DeIilliers, and Rovoltella, 4182
- Landesman, J. M., and Mossman, B. T.** Induction of Ornithine Decarboxylase in Hamster Tracheal Epithelial Cells Exposed to Asbestos and 12-O-Tetradecanoylphorbol-13-acetate, 3669
- Landolph, J. R.** See Gehly, Landolph, Heidelberger, Nagasawa, and Little, 1866
- Landolph, J. R., and Jones, P. A.** Mutagenicity of 5-Azacytidine and Related Nucleosides in C3H/10T1/2 Clone 8 and V79 Cells, 817
- Landry, J., Bernier, D., Chretien, P., Nicole, L. M., Tanguay, R. M., and Marceau, N.** Synthesis and Degradation of Heat Shock Proteins during Development and Decay of Thermotolerance, 2457, *Communication*
- Landry, J. M., Lord, E. M., and Sutherland, R. M.** *In Vivo* Growth of Tumor Cell Spheroids after *in Vitro* Hyperthermia, 93
- Lane, B.** See DiStefano, Beck, Lane, and Zucker, 207
- Lane, E. B.** See Chang, Keen, Lane, and Taylor-Papadimitriou, 2040
- Lane, M.** See Galvan, Evans, Comis, Gottlieb, Gyorkey, Lane, Prestayko, and Crooke, 1562
- Lange, P. H.** See Voelgelzang, Lange, Goldman, Vessella, Fraley, and Kennedy, 4855
- Lange, P. H., Millan, J. L., Stigbrand, T., Vessella, R. L., Ruoslahti, E., and Fishman, W. H.** Placental Alkaline Phosphatase as a Tumor Marker for Seminoma, 3244
- Lannom, R. A.** See Baird, Beattie, Lannom, Lipsick, Jensen, and Kaplan, 198
- Lapis, K., and Weber, G.** Sixth Meeting of the European Association for Cancer Research, 1159, *Meeting Report*
- Larner, E. H., and Rutherford, C. L.** Implementation of Micromethods to Resolve Problems of Human Breast Tumor Heterogeneity in Analysis of Cyclic 3':5'-Nucleotide Phosphodiesterase, 1661
- Lasley, B. L.** See Judd, Barone, Laufer, Gambone, Monfort, and Lasley, 3345\*\*
- Lau, C. C.** See Das, Lau, and Pardee, 4499
- Lau, E.** See Poznansky, Shandling, Salkie, Elliott, and Lau, 1020
- Laufer, L. R.** See Judd, Barone, Laufer, Gambone, Monfort, and Lasley, 3345\*\*
- Laufer, T. M.** See Sando, Hilfiker, Piacentini, and Laufer, 1676
- Launay, J.-M.** See Debons-Guillemain, Launay, Roseto, and Périès, 1513
- Laurent, G.** See Ducore, Erickson, Zwelling, Laurent, and Kohn, 897
- Lavin, M. F.** See Ramsay, Chen, Imray, Kidson, Lavin, and Hockey, 2909
- LaVoie, E. J.** See Melikian, LaVoie, Hecht, and Hoffmann, 1239
- LaVoie, E. J., Bedenko, V., Tulley-Freiler, L., and Hoffmann, D.** Tumor-initiating Activity and Metabolism of Polymethylated Phenanthrenes, 4045
- Lawrence, S. D.** See Althaus, Lawrence, Sattler, Longfellow, and Pitot, 3010
- Lawson, D. H.** See Richmond, Lawson, Nixon, Stevens, and Chawla, 3175
- Lawson, T. A.** See Birt, Lawson, Julius, Runice, and Salmasi, 4455
- Lazan, D. W., Heston, W. D. W., Kadmon, D., and Fair, W. R.** Inhibition of the R3327MAT-Lu Prostatic Tumor by Diethylstilbestrol and 1,2-Bis(3,5-dioxopiperazin-1-yl)propane, 1390
- Lazo, J. S., Boland, C. J., and Schwartz, P. E.** Bleomycin Hydrolase Activity and Cytotoxicity in Human Tumors, 4026
- Leavens, M.** See Stewart, Leavens, Maor, Feun, Luna, Bonura, Caprioli, Loo, and Benjamin, 2474; Stewart, Wallace, Feun, Leavens, Young, Handel, Mavligit, and Benjamin, 2059
- Leboy, P. S.** See Brunke and Leboy, 4979; Salas, Uschmann, and Leboy, 5004
- Lechat, P.** See Ronot, Adolphe, Kuch, Jaffray, Lechat, and Deysson, 3193
- Lechner, J. F.** See Autrup, Grafstrom, Brugh, Lechner, Haugen, Trump, and Harris, 934
- Leclerc, A.** See Martin, Caignard, Olsson, Jeanin, and Leclerc, 3851
- Ledesma, E. J.** See Au, Rustum, Ledesma, Mitelman, and Creaven, 2930; Bruno, Grindey, Zakrzewski, Priore, Kinahan, Moayeri, Ledesma, Mitelman, and Creaven, 4824
- Lee, K.-L.** See Perry, Kulkarni, Lee, and Kenney, 473
- Lee, M.-S.** See Wang, Linsmaier-Bednar, Garner, and Lee, 3974
- Lee, M. Y., and Rosse, C.** Depletion of Lymphocyte Subpopulations in Primary and Secondary Lymphoid Organs of Mice by a Transplanted Granulocytosis-inducing Mammary Carcinoma, 1255
- Lee, S. H., Kelley, S., Chiu, H., and Stebbing, N.** Stimulation of Natural Killer Cell Activity and Inhibition of Proliferation of Various Leukemic Cells by Purified Human Leukocyte Interferon Subtypes, 1312
- Lee, S. P.** See Robertson, Lee, Lindop, Stanley, Thomsen, and Tasman-Jones, 5165
- Lee, T.-C.** See Lin, Lee, and Tung, 276
- Lee, T. H., Essex, M., de Noronha, F., and Azocar, J.** Neutralization of Feline Leukemia Virus with Feline Antisera to Leukocyte Alloantigens, 3995
- LeGrue, S. J.** 1-Butanol Extraction and Subsequent Reconstitution of Membrane Components which Mediate Metastatic Phenotype, 2126
- Lehmann, A. R.** See Mayne and Lehmann, 1473
- Lehnert, S.** Toxicity of Diethylaminoreserpine to a Transplantable Tumor: The Significance of the Presence of Hypoxic Cells, 3028
- Lehr, R. E.** See Chang, Levin, Wood, Lehr, Kumar, Yagi, Jerina, and Conney, 25
- Leibson, P. J.** See Shapiro, Leibson, Loken, and Schreiber, 2622
- Leigh, S. A.** See Goodman, Einspahr, Alberts,

- Davis, Leigh, Chen, and Meyskens, 2087
- Leipzig, B. See Barranco, Townsend, Costanzi, May, Baltz, O'Quinn, Leipzig, Hokanson, Guseman, and Boerwinkle, 2899
- Leith, J. T., Dexter, D. L., DeWyngaert, J. K., Zeman, E. M., Chu, M. Y., Calabresi, P., and Glicksman, A. S. Differential Responses to X-Irradiation of Subpopulations of Two Heterogeneous Human Carcinomas *In Vitro*, 2556
- Leith, J. T., Gaskins, L. A., Dexter, D. L., Calabresi, P., and Glicksman, A. S. Alteration of the Survival Response of Two Human Colon Carcinoma Subpopulations of X-Irradiation by *N,N*-Dimethylformamide, 30
- Leitzel, K. See Witkoski, Kepner, Leitzel, Rogers, Jefferson, and Lipton, 2350
- Leizerowitz, R. See Gallii, Leizerowitz, Moreb, Gamiel, Gurfel, and Polliack, 1433
- Lengsfeld, A. M., Dietrich, J., and Schultze-Maurer, B. Accumulation and Release of Vincristine and Vincristine by HeLa Cells: Light Microscopic, Cinematographic, and Biochemical Study, 3798
- Leonard, R. C. F. See Corkery, Leonard, Henderson, Gelman, Hourihan, Ascoli, and Salhanick, 3409\*\*
- Leong, S. P. L. See Chee, Yonemoto, Leong, Richards, Smith, Klotz, Goto, Gascon, and Drushella, 3142
- Leopold, W. R. See Corbett, Leopold, Dykes, Roberts, Griswold, and Schabel, 1707
- Leopold, W. R., Miller, J. A., and Miller, E. C. Comparison of Some Carcinogenic, Mutagenic, and Biochemical Properties of S-Vinylhomocysteine and Ethionine, 4364
- Lepault, F. See Fache, Lepault, and Frindel, 1922
- Letchworth, G. J., III See Mazauric, Mitchell, Letchworth, Koprowski, and Steplewski, 150
- Leung, B. S., Qureshi, S., and Leung, J. S. Response to Estrogen by the Human Mammary Carcinoma Cell Line CAMA-1, page 5060
- Leung, C. K. H. See Imai, Leung, Friesen, and Shiu, 4394
- Leung, J. S. See Leung, Qureshi, and Leung, 5060
- Leung, J. W. C. See Lam, Yu, Leung, and Henderson, 5246
- Levi, F. A. See Hrushesky, Levi, Halberg, and Kennedy, 945
- Levi, F. A., Hrushesky, W. J. M., Blomquist, C. H., Lakata, D. J., Haus, E., Halberg, F., and Kennedy, B. J. Reduction of *cis*-Diamminedichloroplatinum Nephrotoxicity in Rats by Optimal Circadian Drug Timing, 950
- Levin, M. See Spiegel, Blum, Levin, Pinto, Wernz, Speyer, Hoffman, and Muggia, 354
- Levin, W. See Buhler, Unlu, Thakker, Slaga, Newman, Levin, Conney, and Jerina, 4779; Chang, Levin, Wood, Lehr, Kumar, Yagi, Jerina, and Conney, 25; Wood, Chang, Levin, Yagi, Tada, Vyas, Jerina, and Conney, 2972
- Levine, A. S., Brennan, M. F., Ramu, A., Fisher, R. I., Pizzo, P. A., and Glaubiger, D. L. Controlled Clinical Trials of Nutritional Intervention as an Adjunct to Chemotherapy, with a Comment on Nutrition and Drug Resistance, 774\*
- Levine, P. See Kannagi, Levine, Watanabe, and Hakomori, 5249
- Levine, P. H. See Takasugi, Mickey, and Levine, 1208
- Levine, S. J. See Metzgar, Gaillard, Levine, Tuck, Bossen, and Borowitz, 601
- Levitt, S. H. See Rhee, Song, and Levitt, 4485
- Levy, E. J. See Moyer, Smith, Levy, and Hand-schumacher, 4525
- Levy, J. A. See White, Levy, and McGrath, 906
- Lewensohn, R., Ringborg, U., and Hansson, J. Different Activities of Unscheduled DNA Synthesis in Human Melanoma and Bone Marrow Cells, 84
- Lewin, J. See Bradley, Dysart, Fitzsimmons, Harbach, Lewin, and Wolf, 2592
- Lewis, A. M., Jr., and Cook, J. L. Spectrum of Tumorigenic Phenotypes among Adenovirus 2-, Adenovirus 12-, and Simian Virus 40-transformed Syrian Hamster Cells Defined by Host Cellular Immune-Tumor Cell Interactions, 939
- Lewis, J. G. See Bedell, Lewis, Billings, and Swenberg, 3079
- Lewis, J. G., and Swenberg, J. A. Effect of 1,2-Dimethylhydrazine and Diethylnitrosamine on Cell Replication and Unscheduled DNA Synthesis in Target and Nontarget Cell Populations in Rat Liver following Chronic Administration, 89
- Leyland-Jones, B. R. See Kelsen, Scher, Alcock, Leyland-Jones, Donner, Williams, Greene, Burchenal, Tan, Phillips, and Young, 4831; Kreis, Arlin, Yagoda, Leyland-Jones, and Fiori, 2514
- Li, L. H. See Swenson, Li, Hurley, Rokem, Petzold, Dayton, Wallace, Lin, and Krueger, 2821
- Li, L. H., Swenson, D. H., Schpok, S. L. F., Kuentzel, S. L., Dayton, B. D., and Krueger, W. C. CC-1065 (NSC 298223), a Novel Antitumor Agent that Interacts Strongly with Double-Stranded DNA, 999
- Licht, U. See Yuspa, Ben, Hennings, and Licht, 2344
- Lieberman, M. See Fischinger, Thiel, Lieberman, Kaplan, Dunlop, and Robey, 4650
- Liener, I. E. See Wang, Yu, Liener, Hebbel, Eaton, and McKhann, 1046
- Lightdale, C., Lipkin, M., and Deschner, E. *In Vivo* Measurements in Familial Polyposis: Kinetics and Location of Proliferating Cells in Colonic Adenomas, 4280
- Lijinsky, W. See Farrelly, Stewart, Saavedra, and Lijinsky, 2105; Iype, Ray-Chaudhuri, Lijinsky, and Kelley, 4614; Underwood and Lijinsky, 54
- Lilienblum, W. See Bock, Lilienblum, Pfiel, and Eriksson, 3747
- Lin, A. H. See Swenson, Li, Hurley, Rokem, Petzold, Dayton, Wallace, Lin, and Krueger, 2821
- Lin, J.-Y. See Shionoya, Arai, Koyanagi, Ohtake, Kobayashi, Kodama, Kato, Tung, and Lin, 2872
- Lin, J.-Y., Lee, T. C., and Tung, T.-C. Inhibitory Effects of Four Isoabirins on the Growth of Sarcoma 180 Cells, 276
- Lin, T.-S., Fischer, P. H., Marsh, J. C., and Prusoff, W. H. Antitumor Activity of the 3'-Chloroethylnitrosourea Analog of Thymidine and the Prevention by Co-administered Thymidine of Lethality but Not of Anticancer Activity, 1624
- Lin, Y. C., Loring, J. M., and Villee, C. A. Permissive Role of the Pituitary in the Induction and Growth of Estrogen-dependent Renal Tumors, 1015
- Lindahl, R., Evces, S., and Sheng, W.-L. Expression of the Tumor Aldehyde Dehydrogenase Phenotype during 2-Acetylaminofluorene-induced Rat Hepatocarcinogenesis, 577
- Lindamood, C., III, Bedell, M. A., Billings, K. C., and Swenberg, J. A. Alkylation and *de Novo* Synthesis of Liver Cell DNA from C3H Mice during Continuous Dimethylnitrosamine Exposure, 4153
- Lindell, T. J. See Brothman, Davis, Duffy, and Lindell, 1184
- Lindop, R. See Robertson, Lee, Lindop, Stanley, Thomsen, and Tasman-Jones, 5165
- Lindquist, R. F. See Munger and Lindquist, 5023
- Lindsey, W. F. See Stanberry, Lindsey, and Beattie, 2242
- Ling, V. See Chambers, Shafir, and Ling, 4018
- Linke, I. See Rabes, Bucher, Hartmann, Linke, and Dünwald, 3220
- Linsmaier-Bednar, E. M. See Wang, Linsmaier-Bednar, Garner, and Lee, 3974
- Liotta, L. A. See Terranova, Liotta, Russo, and Martin, 2265
- Lipkin, M. See Lightdale, Lipkin, and Deschner, 4280
- Lippman, M. E. See Aitken and Lippman, 1727; Kerr, Lippman, Jenkins, and Myers, 2069
- Lipsick, J. S. See Baird, Beattie, Lannom, Lipsick, Jensen, and Kaplan, 198
- Lipton, A. See Harvey, Lipton, White, Santen, Boucher, Shafik, Dixon, and Members of The Central Pennsylvania Oncology Group, 3451\*\*
- Lipton, A., Harvey, H. A., and Santen, R. J. Closing Remarks to the Conference, *Aromatase: New Perspectives for Breast Cancer*, 3468\*\*
- Lipton, A., Harvey, H. A., Santen, R. J., Boucher, A., White, D., Bernath, A., Dixon, R., Richards, G., and Shafik, A. Randomized Trial of Aminoglutethimide versus Tamoxifen in Metastatic Breast Cancer, 3434\*\*
- Lipton, J. M. See Agarwal, Blatt, Miser, Sallan, Lipton, Reaman, Holcenberg, and Poplack, 3884
- Lipton, R. M. See Pollack, Irvin, Block, Lipton, Stover, and Claflin, 2184
- Liss, R. H. See Chadwick, Silveira, MacGregor, Brantman, Liss, and Yesair, 627
- Little, J. B. See Barfknecht and Little, 1249; Gehly, Landolph, Heidelberg, Nagasawa, and Little, 1866; Shami, Thibodeau, Kennedy, and Little, 1405
- Littlefield, L. G. See Borman, Swartzendruber, and Littlefield, 5074
- Littman, P. See Nesbit, Sather, Robison, Donaldson, Littman, Ortega, and Hammond, 674
- Litwack, G. See DiSorbo, Paaavola, and Litwack, 2362
- Lo, K.-Y., and Kakunaga, T. Similarities in the Formation and Removal of Covalent DNA Adducts in Benzo(a)pyrene-treated BALB/3T3 Variant Cells with Different Induced Transformation Frequencies, 2644
- Lockney, M. W., Golomb, H. M., and Dawson, G. Unique Cell Surface Glycoprotein Expression in Hairy Cell Leukemia: Effect of Phorbol Ester Tumor Promoters on Surface Glycoproteins, Cell Morphology, and Adherence, 3724
- Lockyer, J. See Colburn, Gindhart, Hegamyer, Blumberg, Delcos, Magun, and Lockyer, 3093
- Loeb, L. A. See Schaaper, Glickman, and Loeb, 3480
- Löfberg, B., Brittebo, E. B., and Tjälve, H. Localization and Binding of *N*-Nitrosomorpholine Metabolites in the Nasal Region and in Some Other Tissues of Sprague-Dawley Rats, 2877
- Loken, M. R. See Shapiro, Leibson, Loken, and Schreiber, 2622
- Lokys, L. See Burchenal, Chou, Lokys, Smith, Watanabe, Su, and Fox, 2598
- Lombardi, B. See Abanobi, Lombardi, and Shinozuka, 412
- Longcope, C. Methods and Results of Aromatization Studies *In Vivo*, 3307\*\*
- Longfellow, D. G. See Althaus, Lawrence, Sattler, Longfellow, and Pitot, 3010
- Longnecker, D. S. See Zurlo, Curphey, Hiley, and Longnecker, 1286
- Longnecker, D. S., Curphey, T. J., Kuhlmann, E. T., and Roebuck, B. D. Inhibition of Pancreatic Carcinogenesis by Retinoids in Azaserine-treated Rats, 19
- Loo, T. L. See Stewart, Leavens, Maor, Feun, Luna, Bonura, Caprioli, Loo, and Benjamin, 2474
- Lord, E. M. See Landry, Lord, and Sutherland, 93
- Loring, J. M. See Lin, Loring, and Villee, 1015
- Lotan, R. See Thein and Lotan, 4771
- Lotzová, E., Savary, C. A., Guterman, J. U., and Hersh, E. M. Modulation of Natural Killer Cell-mediated Cytotoxicity by Partially Purified and Cloned Interferon- $\alpha$ , 2480
- Low, J. E., Borch, R. F., and Sladek, N. E. Conversion of 4-Hydroperoxycyclophosphamide and 4-Hydroxycyclophosphamide to Phosphoramide Mustard and Acrolein Mediated by Bi-functional Catalysts, 830
- Lowe, N. J., Connor, M. J., Breeding, J., and Chalet, M. Inhibition of Ultraviolet-B Epidermal Ornithine Decarboxylase Induction and Skin

- Carcinogenesis in Hairless Mice by Topical In-dimethacrin and Triamcinolone Acetonide, 3941
- Lower, G. M., Jr.** See Swaminathan, Lower, and Bryan, 4479
- Lowrey, J. S.** See Ambrose and Lowrey, 1769
- Lubich, W. P.** See Horn, Beal, Walach, Lubich, Spigel, and Marton, 3248
- Ludlum, D. B.** See Mehta and Ludlum, 2996; Tong, Kirk, and Ludlum, 3102; Tong, Kohn, and Ludlum, 4460
- Ludwig, C.** See Forster, Gudat, Girard, Albrecht, Schmidt, Ludwig, and Obrecht, 1927
- Luetteke, N.** See Scarpelli, Kokkinakis, Rao, Subbarao, Luetteke, and Hollenberg, 5089
- Lui, G.-M.** See Gospodarowicz, Lui, and Gonzalez, 3704
- Lui, M. S.** See Denton, Lui, Aoki, Sebolt, Takeda, Eble, Glover, and Weber, 1176
- Luk, G. D., Goodwin, G., Gazdar, A. F., and Baylin, S. B.** Growth-inhibitory Effects of DL- $\alpha$ -Difluoromethylornithine in the Spectrum of Human Lung Carcinoma Cells in Culture, 3070
- Luna, M.** See Stewart, Leavens, Maor, Feun, Luna, Bonura, Caprioli, Loo, and Benjamin, 2474
- Lundgren, E.** See Marklund, Westman, Lundgren, and Roos, 1955
- Lundholm, K.** See Bennegård, Edén, Ekman, Scherstén, and Lundholm, 4293; Karlberg, Ekman, Edström, Scherstén, and Lundholm, 2284
- Lundholm, K., Bennegård, K., Edén, E., Svaninger, G., Emery, P. W., and Rennie, M. J.** Efflux of 3-Methylhistidine from the Leg in Cancer Patients Who Experience Weight Loss, 4807
- Luu, P.** See Tsao, Morita, Bella, Luu, and Kim, 1052
- Lyon, I., Kannan, R., Ookhtens, M., and Baker, N.** Turnover and Transport of Plasma Very-Low-Density Lipoprotein Triglycerides in Mice Bearing Ehrlich Ascites Carcinoma, 132

# M

- MacEwen, E. G., Patnaik, A. K., Harvey, H. J., and Panko, W. B.** Estrogen Receptors in Canine Mammary Tumors, 2255
- MacGregor, J. A.** See Chadwick, Silveira, MacGregor, Branfman, Liss, and Yesair, 627
- MacIndoe, J. H., Woods, G. R., Etre, L. A., and Covey, D. F.** Comparative Studies of Aromatase Inhibitors in Cultured Human Breast Cancer Cells, 3378\*\*
- Mackel, C.** See Alberts, Mackel, Pocolinko, and Salmon, 1170
- MacLusky, N. J.** See Nattolin and MacLusky, 3274\*\*
- MacRae, S.** See Gorczynski and MacRae, 784
- Madeja, J. M.** See Evers, Patel, Madeja, Schneider, Hobika, Camiolo, and Markus, 219
- Madelmont, J.-C.** See Godeneche, Moreau, Madelmont, Duprat, and Plagne, 525
- Maeda, S.** See Shiraiishi, Yoshima, Maeda, Mizoguchi, Matsumoto, Sugiyama, and Kobata, 2884
- Maercklein, P. B.** See Wille, Maercklein, and Scott, 5139
- Magee, P. N.** Editorial: New Clinical Section, 1
- Maguire, H.** See Berd, Mastrangelo, Engstrom, Paul, and Maguire, 4862
- Magun, B. E.** See Colburn, Gindhart, Hegamyer, Blumberg, Delclos, Magun, and Lockyer, 3093
- Mah, K.** See Hu, Mah, and Teramura, 2786
- Mahmud, I.** See Fuse, Mahmud, and Kuwata, 3209
- Maier, K.** See Fink, Ziegler, Maier, and Wilmanns, 1574; Ziegler, Maier, and Fink, 1567
- Mainwaring, M.** See Chetsanga, Polidori, and Mainwaring, 2616
- Maizel, S. E.** See Valleria, Mentzer, and Maizel, 397
- Major, P. P.** See Herrick, Major, and Kufe, 5015
- Major, P. P., Egan, E., Herrick, D., and Kufe, D.**

- W. 5-Fluorouracil Incorporation in DNA of Human Breast Carcinoma Cells, 3005**
- Mak, T. W.** See Shibuya, Chen, Howatson, and Mak, 2722
- Malaveille, C., Brun, G., Kolar, G., and Bartsch, H.** Mutagenic and Alkylating Activities of 3-Methyl-1-phenyltriazenes and Their Possible Role as Carcinogenic Metabolites of the Parent Dimethyl Compounds, 1446
- Malone, B. N.** See Eckhardt, Malone, and Goldstein, 2977
- Maloney, T.** See Hoogstraten, Fletcher, Gad-el-Mawia, Maloney, Altman, Vaughn, and Foulkes, 4788
- Mandel, H. G.** See Rivest, Irwin, and Mandel, 4039
- Mandel, M.** See Mower, Ichinotsubo, Wang, Mandel, Stemmermann, Nomura, Heilbrun, Kamiyama, and Shimada, 1164
- Manger, R. L., and Heckman, C. A.** Structural Anomalies of Highly Malignant Respiratory Tract Epithelial Cells, 4591
- Mannervik, B.** See Morgenstern, Guthenberg, Mannervik, DePierre, and Ernster, 4215
- Manni, A.** See Pearson, Manni, and Arafah, 3424\*\*
- Manni, A., Rainieri, J., Arafah, B. M., Finegan, H. M., and Pearson, O. H.** Role of Estrogen and Prolactin in the Growth and Receptor Levels of *N*-Nitrosomethylurea-induced Rat Mammary Tumors, 3492
- Mannick, J. A.** See Wang, Heacock, Onikul, Chang-xue, Young, and Mannick, 416
- Mansfield, C. M.** See Kimler, Henderson, Mansfield, Svoboda, and Cheng, 2656
- Maor, M.** See Stewart, Leavens, Maor, Feun, Luna, Bonura, Caprioli, Loo, and Benjamin, 2474
- Maraninchi, D.** See Scavennec, Maraninchi, Gastaut, Carcassonne, and Cailla, 1326
- Marceau, N.** See Landry, Bernier, Chrétien, Nicole, Tanguay, and Marceau, 2457
- Marcorelli, E.** See Ruco, Procopio, Uccini, Marcorelli, and Baroni, 2063
- Marcotte, P. A., and Robinson, C. H.** Design of Mechanism-based Inactivators of Human Placental Aromatase, 3322\*\*
- Margison, G. P.** See Cooper, O'Connor, and Margison, 4203
- Margolin, J.** See Grant, Rauscher, Margolin, and Cadman, 519
- Marhaug, G.** See Husby, Marhaug, and Sletten, 1600
- Marinello, A. J.** See Berrigan, Marinello, Pavelic, Williams, Struck, and Gurtso, 3688
- Markaverich, B. M.** See Syne, Markaverich, Clark, and Panko, 4443, 4449
- Marklund, S. L., Westman, N. G., Lundgren, E., and Roos, G.** Copper- and Zinc-containing Superoxide Dismutase, Manganese-containing Superoxide Dismutase, Catalase, and Glutathione Peroxidase in Normal and Neoplastic Human Cell Lines and Normal Human Tissues, 1955
- Marko, M.** See Parsons, Marko, Braun, and Wansor, 4574
- Marks, A.** See Bauml, Musclow, Farkas-Himsley, and Marks, 1904
- Marks, F.** See Delescluse, Fürstenberger, Marks, and Pruniéras, 1975; Fürstenberger, Richter, Argyris, and Marks, 342
- Markus, G.** See Evers, Patel, Madeja, Schneider, Hobika, Camiolo, and Markus, 219
- Marrett, L. D.** See Hartge, Hoover, Altman, Austin, Cantor, Child, Key, Mason, Marrett, Myers, Narayana, Silverman, Sullivan, Swanson, Thomas, and West, 4784
- Marsh, J. C.** See Lin, Fischer, Marsh, and Prusoff, 1624
- Martin, C. N., Beland, F. A., Roth, R. W., and Kadlubar, F. F.** Covalent Binding of Benzidine and *N*-Acetylbenzidine to DNA at the C-8 Atom of Deoxyguanosine *In Vivo* and *In Vitro*, 2678
- Martin, D. S., Stolfi, R. L., Sawyer, R. C., Spie-**

- gelman, S., and Young, C. W.** High-Dose 5-Fluorouracil with Delayed Uridine "Rescue" in Mice, 3964
- Martin, F., Caignard, A., Olsson, O., Jeannin, J. F., and Leclerc, A.** Tumoricidal Effect of Macrophages Exposed to Adriamycin *In Vivo* or *In Vitro*, 3851
- Martin, G. R.** See Kimata, Foidart, Pennypacker, Kleinman, Martin, and Hewitt, 2384; Terranova, Liotta, Russo, and Martin, 2265
- Martin, J. C.** See Burchiel, Martin, Imai, Ferrone, and Warner, 4110
- Martin, T. J.** See Frampton, Suva, Eisman, Findlay, Moore, Moseley, and Martin, 1116
- Marton, L. J.** See Horn, Beal, Walach, Lubich, Spigel, and Marton, 3248; Oredsson, Deen, and Marton, 1296
- Mary, J.-Y.** See Guigon, Mary, Enouf, and Frindel, 638
- Mashburn, J. P.** See Whitehurst, Mashburn, Prellow, Bradley, and Bochaker, 4300
- Mason, R. P.** See Josephy, Mason, and Eling, 2567
- Mason, T. J.** See Hartge, Hoover, Altman, Austin, Cantor, Child, Key, Mason, Marrett, Myers, Narayana, Silverman, Sullivan, Swanson, Thomas, and West, 4784
- Massa, G.** See Pannacciulli, Massa, Bogliolo, Ghio, and Sobrero, 530
- Masters, B. S. S.** See Dees, Masters, Muller-Eberhard, and Johnson, 1423
- Masters, V.** See Bird, Masters, Sterns, and Clark, 4797
- Mastrangelo, M. J.** See Berd, Mastrangelo, Engstrom, Paul, and Maguire, 4862
- Mastro, A. M., and Pepin, K. G.** Effect of Macrophages on Phorbol Ester-stimulated Commitogenesis in Bovine Lymphocytes, 1630
- Masuko, Y.** See Seto, Umemoto, Saito, Masuko, Hara, and Takahashi, 5209
- Matarese, G. P.** See Palitti, Matarese, Diana, Sorrentino, and Rossi, 4753
- Matney, T. S.** See Nguyen, Theiss, and Matney, 4792
- Matook, G. M.** See Dexter, Matook, Meitner, Bogaars, Jolly, Turner, and Calabresi, 2705; Dexter, Spremulli, Matook, Diamond, and Calabresi, 5018
- Matsuda, S.** See Nakao, Matsuda, Fujita, Watanabe, Morikawa, Saita, and Ito, 3843
- Matsuda, Y., Shiraki, H., and Nakagawa, H.** Molecular Transformation of Tumor Adenylsuccinate Synthetase and Characteristics of Its Converting Factor, 112
- Matsui, I., and Pegg, A. E.** Induction of Spermidine *N*-Acetyltransferase by Diallylnitrosamines, 2990
- Matsumoto, A.** See Shiraiishi, Yoshima, Maeda, Mizoguchi, Matsumoto, Sugiyama, and Kobata, 2884
- Matsumoto, K.** See Yoshida, Yoshida, Fukunishi, Sato, Okamoto, and Matsumoto, 2434
- Matsuoka, Y., Kuroki, M., Koga, Y., Kuriyama, H., Mori, T., and Kosaki, G.** Immunohistochemical Differences among Carcinoembryonic Antigen in Tumor Tissues and Related Antigens in Meconium and Adult Feces, 2012
- Matsushima, M., Takano, S., Ertürk, E., and Bryan, G. T.** Induction of Ornithine Decarboxylase Activity in Mouse Urinary Bladder by L-Tryptophan and Some of Its Metabolites, 3587
- Matter, A.** See Hartmann and Matter, 2412
- Matthews, E. J.** See Brown, Shoffner, Tondreau, Matthews, Terry, and Rosenberg, 2216
- Matusik, R. J.** See Fleming, Pettigrew, Matusik, and Friesen, 3138
- Mavligit, G.** See Stewart, Wallace, Feun, Leavens, Young, Handel, Mavligit, and Benjamin, 2059
- May, J. T.** See Barranco, May, Boerwinkle, Nichols, Hokanson, Schumann, Göhde, Bryant, and Guseman, 2894; Barranco, Townsend, Costanzi, May, Baltz, O'Quinn, Leipzig, Hokanson, Guseman, and Boerwinkle, 2899
- Mayhew, E.** See Ho, Mayhew, Preisler, and Bar-



- dos, 1740
- Mayne, L. V., and Lehmann, A. R.** Failure of RNA Synthesis to Recover after Ultraviolet Irradiation: An Early Defect in Cells from Individuals with Cockayne's Syndrome and Xeroderma Pigmentosum, 1473
- Mays, J. B.** See Frederick, Mays, Ziegler, Guengerich, and Kadlubar, 2671
- Mazauric, T., Mitchell, K. F., Letchworth, G. J., III, Koprowski, H., and Steplewski, Z.** Monoclonal Antibody-defined Human Lung Cell Surface Protein Antigens, 150
- Mazumder, A., Grimm, E. A., Zhang, H. Z., and Rosenberg, S. A.** Lysis of Fresh Human Solid Tumors by Autologous Lymphocytes Activated *In Vitro* with Lectin, 913
- McCarthy, D. J., Struck, R. F., Shih, T.-W., Suling, W. J., Hill, D. L., and Enke, S. E.** Disposition and Metabolism of the Carcinogen Reduced Michler's Ketone in Rats, 3475
- McCarthy, W. H.** See Hersey, Hobbs, Edwards, McCarthy, and McGovern, 363
- McCluskey, G. A.** See Hecker and McCluskey, 59
- McComb, D. J.** See See, Sun, McComb, Gerrie, and Kovacs, 2336
- McCormick, D. L., Mehta, R. G., Thompson, C. A., Dinger, N., Caldwell, J. A., and Moon, R. C.** Enhanced Inhibition of Mammary Carcinogenesis by Combined Treatment with *N*-(4-Hydroxyphenyl)retinamide and Ovariectomy, 508
- McCormick, D. L., and Moon, R. C.** Influence of Delayed Administration of Retinyl Acetate on Mammary Carcinogenesis, 2639
- McCormick, K. J.** See Morgan, Rossen, McCormick, Stehlin, and Giovannella, 881
- McDaniel, H. G.** See Pretlow, Whitehurst, Pretlow, Hunt, Jacobs, McKenzie, McDaniel, Hall, and Bradley, 4842
- McGovren, J. P.** See Weiss, McGovren, Schade, and Kufe, 3892
- McGovern, V. J.** See Hersey, Hobbs, Edwards, McCarthy, and McGovern, 363
- McGrath, C. M.** See White, Levy, and McGrath, 906
- McGuire, W. L.** New Strategies for Investigating Antiestrogen Action in Breast Cancer, 3420\*\*
- See also Ciocca, Adams, Bjerkke, Edwards, and McGuire, 4256
- McIntire, K. R.** See Braatz, Scharfe, Princier, and McIntire, 849; Princier, McIntire, and Braatz, 843
- McKenzie, D. R.** See Pretlow, Whitehurst, Pretlow, Hunt, Jacobs, McKenzie, McDaniel, Hall, and Bradley, 4842
- McKeown, C. K.** See Hass, McKeown, Sardella, Boger, Ghoshal, and Huberman, 1646
- McKhann, C. F.** See Wang, Yu, Liener, Hebbel, Eaton, and McKhann, 1046
- McKinna, J. A.** See Smith, Harris, Morgan, Gazet, and McKinna, 3430\*\*
- McKinney, C. E.** See Kouri, McKinney, Slomiany, Snodgrass, Wray, and McLemore, 5030
- McKinney, E. C.** See Kozlovskis, Claflin, Fletcher, McKinney, and Rubin, 2748
- McLachlan, J. A.** See Degen, Eling, and McLachlan, 1919; Newbold and McLachlan, 2003
- McLachlan, J. A., Wong, A., Degen, G. H., and Barrett, J. C.** Morphological and Neoplastic Transformation of Syrian Hamster Embryo Fibroblasts by Diethylstilbestrol and Its Analogs, 3040
- McLemore, T. L.** See Kouri, McKinney, Slomiany, Snodgrass, Wray, and McLemore, 5030
- McManus, P.** See Reinke, McManus, Kauffman, and Thurman, 1681
- McNally, W. P.** See Fairchild, Greenberg, Watts, Packer, Atkins, Som, Hannon, Brill, Fand, and McNally, 556; Fairchild, Packer, Greenberg, Som, Brill, Fand, and McNally, 5126
- McPherson, S.** See Kinsella, Mitchell, McPherson, Russo, and Tietze, 3950
- Meadows, G. G., Pierson, H. F., Abdallah, R. M., and Desai, P. R.** Dietary Influence of Tyrosine and Phenylalanine on the Response of B16 Melanoma to Carbidopa-Levodopa Methyl Ester Chemotherapy, 3056
- Mednieks, M. I., Jungmann, R. A., and DeWys, W. D.** Cyclic Adenosine 3':5'-Monophosphate-dependent Protein Phosphorylation and the Control of Leukemia L1210 Cell Growth, 2742
- Meeker, L. D.** See Thompson, Meeker, Becci, and Kokoska, 4954; Thompson, Meeker, Tagliarferro, and Becci, 903
- Mehta, J. R., and Ludlum, D. B.** Trapping of DNA-reactive Metabolites of Therapeutic or Carcinogenic Agents by Carbon-14-labeled Synthetic Polynucleotides, 2996
- Mehta, R. G.** See McCormick, Mehta, Thompson, Dinger, Caldwell, and Moon, 508
- Meisler, N. T., Nutter, L. M., and Thanassi, J. W.** Vitamin B<sub>6</sub> Metabolism in Liver and Liver-derived Tumors, 3538
- Meissner, W. A.** See Hellman, Moloney, and Meissner, 433
- Meistrich, M. L., Finch, M., da Cunha, M. F., Hacker, U., and Au, W. W.** Damaging Effects of Fourteen Chemotherapeutic Drugs on Mouse Testis Cells, 122
- Meites, J.** See Sylvestre, Aylsworth, Van Vugt, and Meites, 4943
- Meitner, P. A.** See Dexter, Matook, Meitner, Bogaers, Jolly, Turner, and Calabresi, 2705
- Melamed, M. R.** See Darzynkiewicz, Traganos, Staiano-Coico, Kapuscinski, and Melamed, 799; Klein, Melamed, Whitmore, Herr, Sogani, and Darzynkiewicz, 1094
- Melikian, A. A., LaVoie, E. J., Hecht, S. S., and Hoffmann, D.** Influence of a Bay-Region Methyl Group on Formation of 5-Methylchrysene Dihydrodiol Epoxide:DNA Adducts in Mouse Skin, 1239
- Mentzer, S. J.** See Valleria, Mentzer, and Maizel, 397
- Merdink, J. L.** See Abdel-Monem, Merdink, and Theologides, 2097
- Messing, E. M., Fahey, J. L., deKernion, J. B., Bhuta, S. M., and Bubbers, J. E.** Serum-free Medium for the *In Vitro* Growth of Normal and Malignant Urinary Bladder Epithelial Cells, 2392
- Metter, G. E.** See Shively, Spayth, Chang, Metter, Klein, Present, and Todd, 2506
- Metzgar, R. S., Gaillard, M. T., Levine, S. J., Tuck, F. L., Bossen, E. H., and Borowitz, M. J.** Antigens of Human Pancreatic Adenocarcinoma Cells Defined by Murine Monoclonal Antibodies, 601
- Meyers, C. A.** See Anzano, Roberts, Meyers, Koriya, Lamb, Smith, and Sporn, 4776
- Meyn, R. E., Jenkins, S. F., and Thompson, L. H.** Defective Removal of DNA Cross-Links in a Repair-deficient Mutant of Chinese Hamster Cells, 3106
- Meyskens, F. L., Jr.** See Ahmann, Meyskens, Moon, Durie, and Salmon, 4495; Goodman, Einspahr, Alberts, Davis, Leigh, Chen, and Meyskens, 2087; Thomson and Meyskens, 4606
- Michaels, S.** See Zwelling, Kerrigan, and Michaels, 2687
- Michalides, R., Wagenaar, E., and Sluys, M.** Mammary Tumor Virus DNA as a Marker for Genotypic Variance within Hormone-responsive GR Mouse Mammary Tumors, 1154
- Michalopoulos, G.** See Jirtle and Michalopoulos, 3000; Strom and Michalopoulos, 4519
- Michalopoulos, G., Cianciulli, H. D., Novotny, A. R., Kligerman, A. D., Strom, S. C., and Jirtle, R. L.** Liver Regeneration Studies with Rat Hepatocytes in Primary Culture, 4673
- Mickey, D. D.** See Niell, Wood, Mickey, and Soloway, 807
- Mickey, M. R.** See Takasugi, Mickey, and Levine, 1208
- Mihich, E.** See Zakrzewski, Pavelic, Greco, Bulard, Creaven, and Mihich, 2177
- Mikawa, H.** See Hosoi, Nakamura, Higashi, Yamamuro, Toyama, Shinomiya, and Mikawa, 654
- Milas, L., Hunter, N., Reid, B. O., and Thames, H. D., Jr.** Protective Effects of S-2-(3-Aminopropylamino)ethylphosphorothioic Acid against Radiation Damage of Normal Tissues and a Fibrosarcoma in Mice, 1888
- Millán, J. L.** See Lange, Millán, Stigbrand, Vessella, Ruoslahti, and Fishman, 3244
- Millán, J. L., Stigbrand, T., Ruoslahti, E., and Fishman, W. H.** Characterization and Use of an Allotype-specific Monoclonal Antibody to Placental Alkaline Phosphatase in the Study of Cancer-related Phosphatase Polymorphism, 2444
- Miller, A. G., and Whitlock, J. P., Jr.** Efficient Metabolism of Benzo(a)pyrene at Nanomolar Concentrations by Intact Murine Hepatoma Cells, 4473
- Miller, D. R.** See DiGiovanni, Miller, Singer, Viaje, and Slaga, 2579
- Miller, D. R.** See Tan, Hancock, Steiner, Steiner, Herz, Sorell, Chan, Mondora, and Miller, 1579
- Miller, E. C.** See Leopold, Miller, and Miller, 4364; Montesano, Rajewsky, Pegg, and Miller, 5236
- Miller, J. A.** See Leopold, Miller, and Miller, 4364
- Miller, L. L.** See Harris, Miller, and Hickok, 4985
- Miller, W. R., Hawkins, R. A., and Forrest, A. P. M.** Significance of Aromatase Activity in Human Breast Cancer, 3365\*\*
- Mimnaugh, E. G., Trush, M. A., Ginsburg, E., and Gram, T. E.** Differential Effects of Anthracycline Drugs on Rat Heart and Liver Microsomal Reduced Nicotinamide Adenine Dinucleotide Phosphate-dependent Lipid Peroxidation, 3574
- Miner, K. M., Kawaguchi, T., Uba, G. W., and Nicolson, G. L.** Clonal Drift of Cell Surface, Melanogenic, and Experimental Metastatic Properties of *In Vivo*-selected, Brain Meningeal-colonizing Murine B16 Melanoma, 4631
- Minowada, J.** See Takeda, Minowada, and Bloch, 5152
- Mirabelli, C. K., Beattie, W. G., Huang, C.-H., Prestayko, A. W., and Crooke, S. T.** Comparison of the Sequences at Specific Sites on DNA Cleaved by the Antitumor Antibiotics Talisomycin and Bleomycin, 1399
- Mirabelli, C. K., Ting, A., Huang, C.-H., Mong, S., and Crooke, S. T.** Bleomycin and Talisomycin Sequence-specific Strand Scission of DNA: A Mechanism of Double-Strand Cleavage, 2779
- Miranda, A. F.** See Fisher, Miranda, Mufson, Weinstein, Fujiki, Sugimura, and Weinstein, 2829
- Mirkin, B. L.** See O'Dea, Pons, Hansen, and Mirkin, 4433; Pons, O'Dea, and Mirkin, 3719
- Mironescu, S. G. D., Epstein, S. M., and DiPaolo, J. A.** Cyclic Nucleotide Modulation of *In Vitro* Morphological Transformation of Syrian Hamster Cells, 1274
- Miser, J.** See Agarwal, Blatt, Miser, Sallan, Lipton, Reaman, Holcenberg, and Poplack, 3884
- Mishima, Y.** See Imokawa and Mishima, 1994
- Mitchell, D.** See Gusterson, Warburton, Mitchell, Ellison, Neville, and Rudland, 4763
- Mitchell, J. B.** See Bromer, Mitchell, and Soares, 1261; Kinsella, Mitchell, McPherson, Russo, and Tietze, 3950
- Mitchell, K. F.** See Mazauric, Mitchell, Letchworth, Koprowski, and Steplewski, 150
- Mittleman, A.** See Au, Rustum, Ledesma, Mittleman, and Creaven, 2930; Bruno, Grindey, Zakrzewski, Priore, Kinahan, Moayeri, Ledesma, Mittleman, and Creaven, 4824
- Miura, Y.** See Kano, Sakamoto, Kasahara, Kusumoto, Hida, Suda, Ozawa, Miura, and Takaku, 3090
- Miyano, K.** See Nakabayashi, Taketa, Miyano, Yamane, and Sato, 3858
- Miyashita, M.** See Engvall, Miyashita, and Ruoslahti, 2028
- Miyata, Y.** See Babaya, Miyata, Chmiel, and

- Oyasu, 15
- Miyoshi, I.** See Yokoyama, Kitamura, Kohrogi, and Miyoshi, 3806
- Mizoguchi, A.** See Shiraishi, Yoshima, Maeda, Mizoguchi, Matsumoto, Sugiyama, and Kobata, 2884
- Mizuno, D.** See Iwata-Dohi, Esumi-Kurisu, Ikenami, Sadatsune, Mizuno, and Yamazaki, 3196
- Mizuno, S., and Ishida, A.** Selective Enhancement of the Cytotoxicity of the Bleomycin Derivative, Peplomycin, by Local Anesthetics Alone and Combined with Hyperthermia, 4726
- Mizushima, Y., Yuhki, N., Hosokawa, M., and Kobayashi, H.** Diminution of Cyclophosphamide-induced Suppression of Antitumor Immunity by an Immunomodulator PS-K, and Combined Therapeutic Effects of PS-K and Cyclophosphamide on Transplanted Tumor in Rats, 5176
- Moayeri, H.** See Bruno, Grindey, Zakrzewski, Priore, Kinahan, Moayeri, Ledesma, Mittelman, and Creaven, 4824
- Moccio, D. M.** See Sirotnak, Moccio, Goutas, Kelleher, and Montgomery, 924
- Mokyr, M. B., Hengst, J. C. D., and Dray, S.** Role of Antitumor Immunity in Cyclophosphamide-induced Rejection of Subcutaneous Nonpalpable MOPC-315 Tumors, 974
- Mokyr, M. B., Przepiorka, D., and Dray, S.** Mode of Action of Polyethylene Glycol 6000 in Potentiating the *in Vitro* Generation of Antitumor Cytotoxicity by MOPC-315 Tumor Bearer Spleen Cells, 2537
- Moldawer, L. L.** See Kawamura, Moldawer, Keenan, Batist, Bothe, Bistran, and Blackburn, 824
- Moloney, W. C.** See Hellman, Moloney, and Meissner, 433
- Monaco, A. P.** See De Fazio, Gozzo, and Monaco, 2913
- Monaco, G., Vigneti, E., Lancieri, M., Cornaglia-Ferraris, P., Lambertenghi-Deliliers, G., and Revoltella, R.** Induction of Monocyte-Macrophage Differentiation in a New Diploid Line of Human Hematopoietic Cells (CM-S) by Phorbol Esters, 4182
- Mondora, A.** See Tan, Hancock, Steinhert, Steinhert, Sorell, Chan, Mondora, and Miller, 1579
- Monfort, S. L.** See Judd, Barone, Laufer, Gambone, Monfort, and Lasley, 3345\*\*
- Mong, S.** See Mirabelli, Ting, Huang, Mong, and Crooke, 2779
- Montelius, J., Papadopoulos, D., Bengtsson, M., and Rydström, J.** Metabolism of Polycyclic Aromatic Hydrocarbons and Covalent Binding of Metabolites to Protein in Rat Adrenal Gland, 1479
- Montesano, R., Rajewsky, M. F., Pegg, A. E., and Miller, E.** Development and Possible Use of Immunological Techniques to Detect Individual Exposure to Carcinogens: International Agency for Research on Cancer/International Programme on Chemical Safety Working Group Report, 5236, *Meeting Report*
- Montgomery, J. A.** Has the Well Gone Dry? The First Cain Memorial Award Lecture, 3911. See also Sirotnak, Moccio, Goutas, Kelleher, and Montgomery, 924
- Moon, R. C.** See McCormick, Mehta, Thompson, Dinger, Caldwell, and Moon, 508; McCormick and Moon, 2639
- Moon, T. E.** See Ahmann, Meyskens, Moon, Durie, and Salmon, 4495; Cress, Culver, Moon, and Gerner, 1716
- Moore, B. P., Hicks, R. M., Knowles, M. A., and Redgrave, S.** Metabolism and Binding of Benzo(a)pyrene and 2-Acetylaminofluorene by Short-Term Organ Cultures of Human and Rat Bladder, 642
- Moore, C. J.** See Gould, Cathers, and Moore, 4619
- Moore, C. W.** Control of *in Vivo* (Cellular) Phleomycin Sensitivity by Nuclear Genotype, Growth Phase, and Metal Ions, 929
- Moore, G. E.** See Frampton, Suva, Eisman, Findlay, Moore, Moseley, and Martin, 1116
- Moran, R. G.** See Spears, Shahinian, Moran, Heidelberger, and Corbett, 450
- More, N.** See Rahman, More, and Schein, 1817
- Moreau, M-F.** See Godaneche, Moreau, Madelmont, Duprat, and Plagne, 525
- Moreb, J.** See Gallili, Leizerowitz, Moreb, Gamliel, Gurfel, and Pollack, 1433
- Morel, Y., Albaladejo, V., Bouvier, J., and Andre, J.** Inhibition by 17 $\beta$ -Estradiol of the Growth of the Rat Pituitary Transplantable Tumor MTF<sub>2</sub>, page 1492
- Morgan, A. C., Rossen, R. D., McCormick, K. J., Stehlin, J. S., Jr., and Giovannella, B. C.** "Hidden" Cytotoxic Antibodies that React with Allogeneic Cultured Fetal and Tumor Cells Contained in Soluble Immune Complexes from Normal Human Sera, 881
- Morgan, M.** See Smith, Harris, Morgan, Gazet, and McKinna, 3430\*\*
- Morgenstern, B.** See Schwartz, Morgenstern, and Capizzi, 2191
- Morgenstern, R., Guthenberg, C., Mannervik, B., DePierre, J. W., and Ernster, L.** Benzo(a)pyrene Metabolism by Rat Liver Microsomes: Effects of Adding Purified Glutathione S-Transferases A, B, and C, 4215
- Mori, M.** See Yokoyama, Kaneko, Dempo, Chisaka, Mori, and Onoe, 4158
- Mori, T.** See Matsuoka, Kuroki, Koga, Kuriyama, Mori, and Kosaki, 2012
- Moriguchi, S.** See Sone, Moriguchi, Shimizu, Ogushi, and Tsubura, 2227
- Morikawa, S.** See Nakao, Matsuda, Fujita, Watanabe, Morikawa, Saita, and Ito, 3843; Onoda, Morikawa, Harada, Suzuki, Inoue, and Nishigami, 2867
- Morimoto, M.** See Gomi, Morimoto, and Nomoto, 4197
- Morita, A.** See Tsao, Morita, Bella, Luu, and Kim, 1052
- Morita, A., Tsao, D., and Kim, Y. S.** Effect of Sodium Butyrate on Alkaline Phosphatase in HRT-18, a Human Rectal Cancer Cell Line, 4540
- Morosan, B. A.** See Weir, Cashmore, Dreyer, Graham, Hsiao, Morosan, Sawicki, and Bertino, 1696
- Morris, H. P.** See Kaplan, Morris, and Coleman, 4399; Wei, Morris, and Hickie, 2571
- Morrison, L. E.** See Parsons and Morrison, 3783; Parsons, Smellie, Morrison, and Hayward, 1454
- Morrison, S. D.** Feeding Response of Tumor-bearing Rats to Insulin and Insulin Withdrawal and the Contribution of Autonomously Tumor Drain to Cachectic Depletion, 3642; Impairment of Feeding Response to Cold Exposure of Rats Bearing Walker 256 Carcinoma, 490
- Mort, J. S.** See Recklies, Mort, and Poole, 1026
- Mortel, R.** See Satyawaroop and Mortel, 1322
- Morton, D. L.** See Iwaki, Kasai, Terasaki, Bernoco, Park, Cicciarelli, Heintz, Saxton, Burk, and Morton, 409; Tanigawa, Kern, Hikasa, and Morton, 2159
- Morton, N.** See Glode, Robinson, Hartmann, Klein, Thomas, and Morton, 4270
- Morton, P. A., Klinger, M. M., and Steiner, S. M.** Characterization of an Amino Acid Fucoside of Normal and SV40-transformed Human Embryonic Lung Cells, 3022
- Moseley, J. M.** See Frampton, Suva, Eisman, Findlay, Moore, Moseley, and Martin, 1116
- Moses, H. L.** See Robinson, Branum, Volkenant, and Moses, 2633
- Mossman, B. T.** See Landesman and Mossman, 3669
- Motoyama, T.** See Sakakibara, Suzuki, Motoyama, Watanabe, and Nagai, 2019
- Moutford, C. E., Grossman, G., Reid, G., and Fox, R. M.** Characterization of Transformed Cells and Tumors by Proton Nuclear Magnetic Resonance Spectroscopy, 2270
- Mower, H. F., Ichinotsubo, D., Wang, L. W., Mandel, M., Stemmermann, G., Nomura, A., Heilbrun, L., Kamiyama, S., and Shimada, A.** Fecal Mutagens in Two Japanese Populations with Different Colon Cancer Risks, 1164
- Moyer, J. D., Smith, P. A., Levy, E. J., and Handschumacher, R. E.** Kinetics of N-(Phosphonacetyl)-L-aspartate and Pyrazofurin Depletion of Pyrimidine Ribonucleotide and Deoxyribonucleotide Pools and Their Relationship to Nucleic Acid Synthesis in Intact and Permeabilized Cells, 4525
- Muchmore, A. V.** See Kleiner, Zwelling, Schwartz, and Muchmore, 1692
- Mueller, G. C.** See Kwong and Mueller, 2115
- Mueller-Klieser, W. F., and Sutherland, R. M.** Influence of Convection in the Growth Medium on Oxygen Tensions in Multicellular Tumor Spheroids, 237
- Mufson, R. A.** See Fisher, Miranda, Mufson, Weinstein, Fujiki, Sugimura, and Weinstein, 2829
- Mufson, R. A., Steinberg, M. L., and Defendi, V.** Effects of 12-O-Tetradecanoylphorbol-13-acetate on the Differentiation of Simian Virus-40-infected Human Keratinocytes, 4600
- Muggia, F. M.** See Spiegel, Blum, Levin, Pinto, Wernz, Speyer, Hoffman, and Muggia, 354
- Mukherjee, B. B.** See Antecol and Mukherjee, 3870
- Mulkins, M. A., and Heidelberger, C.** Biochemical Characterization of Fluoropyrimidine-resistant Murine Leukemic Cell Lines, 965; Isolation of Fluoropyrimidine-resistant Murine Leukemic Cell Lines by One-Step Mutation and Selection, 956
- Müller, G.** See Hasper, Müller, and Schweizer, 2034
- Muller-Eberhard, U.** See Dees, Masters, Muller-Eberhard, and Johnson, 1423; Norman, Muller-Eberhard, and Johnson, 1722
- Munakata, K.** See Kuroki, Hosomi, Munakata, Onizuka, Terauchi, and Nemoto, 1859
- Munger, W. E., and Lindquist, R. R.** Effect of Phorbol Esters on Alloimmune Cytolysis, 5023
- Muramatsu, H., Muramatsu, T., and Avner, P.** Biochemical Properties of the High-Molecular-Weight Glycopeptides Released from the Cell Surface of Human Teratocarcinoma Cells, 1749
- Muramatsu, T.** See Muramatsu, Muramatsu, and Avner, 1749
- Murasaki, G.** See Cohen, Murasaki, Fukushima, and Greenfield, 65
- Murdock, K. C.** See Citarella, Wallace, Murdock, Angier, Durr, and Forbes, 440
- Murphey, M. M.** See Somers and Murphey, 2575
- Murphy, T. L., and Cooper, I. A.** Pattern of Isoaccepting Transfer RNAs Common to 26 Patients with Hodgkin's Disease, 3887
- Murray, A. W.** See Guy and Murray, 1980
- Murray, R. M. L., and Pitt, P.** Aminoglutethimide in Tamoxifen-resistant Patients: The Melbourne Experience, 3437\*\*
- Musclow, E.** See Baumal, Musclow, Farkas-Himsley, and Marks, 1904
- Myer, F. E.** See Tennant, Otten, Myer, and Rascati, 3050
- Myers, C. E.** See Kerr, Lippman, Jenkins, and Myers, 2069; Ozols, Young, Speyer, Sugarbaker, Greene, Jenkins, and Myers, 4265
- Myers, M. H.** See Hartge, Hoover, Altman, Austin, Cantor, Child, Key, Mason, Marrett, Myers, Narayana, Silverman, Sullivan, Swanson, Thomas, and West, 4784

## N

- Nadji, M.** See Distasio, Durden, Paul, and Nadji, 252
- Naftolin, F., and MacLusky, N. J.** Aromatase in the Central Nervous System, 3274\*\*

- Nagai, Y.** See Sakakibara, Suzuki, Motoyama, Watanabe, and Nagai, 2019
- Nagasawa, H.** See Gehly, Landolph, Heidelberg, Nagasawa, and Little, 1866
- Nagase, S.** See Esumi, Takahashi, Seki, Sato, Nagase, and Sugimura, 306
- Nagatsu, T.** See Fujita, Shinpo, Yamada, Sato, Niimi, Shamoto, Nagatsu, Takeuchi, and Umezawa, 309
- Nagel, G. A., Wander, H.-E., and Blossley, H.-C.** Phase II Study of Aminoglutethimide and Medroxyprogesterone Acetate in the Treatment of Patients with Advanced Breast Cancer, 3442\*\*
- Nakabayashi, H., Taketa, K., Miyano, K., Yamane, T., and Sato, J.** Growth of Human Hepatoma Cell Lines with Differentiated Functions in Chemically Defined Medium, 3858
- Nakadate, T., Yamamoto, S., Ishii, M., and Kato, R.** Inhibition of 12-O-Tetradecanoylphorbol-13-acetate-induced Epidermal Ornithine Decarboxylase Activity by Phospholipase A<sub>2</sub> Inhibitors and Lipoxigenase Inhibitor, 2841
- Nakae, S.** See Tsuchiya, Kobayashi, Goto, Okumura, Nakae, Konno, and Tada, 1530
- Nakagawa, H.** See Matsuda, Shiraki, and Nakagawa, 112
- Nakamura, N.** See Kojima, Nakamura, Kanatani, and Akiyama, 2857
- Nakamura, T.** See Hosoi, Nakamura, Higashi, Yamamuro, Toyama, Shinomiya, and Mikawa, 654
- Nakamura, T.** See Osawa, Tochigi, Higashiyama, Yarborough, Nakamura, and Yamamoto, 3299\*\*
- Nakano, S., Bruce, S. A., Ueo, H., and Ts'o, P. O. P.** A Qualitative and Quantitative Assay for Cells Lacking Postconfluence Inhibition of Cell Division: Characterization of This Phenotype in Carcinogen-treated Syrian Hamster Embryo Cells in Culture, 3132
- Nakao, Y., Matsuda, S., Fujita, T., Watanabe, S., Morikawa, S., Saita, T., and Ito, Y.** Phorbol Ester-induced Differentiation of Human T-Lymphoblastic Cell Line HPB-ALL, 3843
- Nandi, S.** See Guzman, Osborn, Yang, DeOme, and Nandi, 2376
- Narayana, A. S.** See Hartge, Hoover, Altman, Austin, Cantor, Child, Key, Mason, Marrett, Myers, Narayana, Silverman, Sullivan, Swanson, Thomas, and West, 4784
- Nasiell, M.** See Auer, Ono, Nasiell, Caspersson, Kato, Konaka, and Hayata, 4241
- Natali, P. G., Wilson, B. S., Imai, K., Bigotti, A., and Ferrone, S.** Tissue Distribution, Molecular Profile, and Shedding of a Cytoplasmic Antigen Identified by the Monoclonal Antibody 465.12S to Human Melanoma Cells, 583
- Naylor, P. H.** See Wagner, Naylor, Kim, Shea, Ip, and Ip, 1266
- Needham, C. A.** See Keathley and Needham, 4284
- Negoro, S., and Seon, B. K.** Several New Monoclonal Antibodies Directed to Human T-Cell Leukemia Antigens, 4259, *Communication*
- Neidle, S., Subbiah, A., Kuroda, R., and Cooper, C. S.** Molecular Structure of (±)-7,8,9,10-Tetrahydroxy-7,8,9,10-tetrahydrobenzo(a)pyrene Determined by X-Ray Crystallography, 3766
- Nelson, C. H., Allison, J. P., Kline, K., and Sanders, B. G.** Chicken Fetal and Adult Antigen Expression on Erythroleukemia Cells Before and After Induced Differentiation, 4625
- Nelson, K. G., and Slaga, T. J.** Keratin Modifications in Epidermis, Papillomas, and Carcinomas during Two-Stage Carcinogenesis in the SEN-CAR Mouse, 4176
- Nelson, K. G., Stephenson, K. B., and Slaga, T. J.** Protein Modifications Induced in Mouse Epidermis by Potent and Weak Tumor-promoting Hyperplasiogenic Agents, 4164
- Nemoto, N.** See Kuroki, Hosomi, Munakata, Onizuka, Terauchi, and Nemoto, 1859
- Nemoto, T.** See Dao, Sinha, Nemoto, and Patel, 359
- Nesbit, M. E.** See Robison, Arthur, Ball, Danzi, and Nesbit, 4289
- Nesbit, M. E., Sather, H., Robison, L. L., Donaldson, M., Littman, P., Ortega, J. A., and Hammond, G. D., for Childrens Cancer Study Group.** Sanctuary Therapy: A Randomized Trial of 724 Children with Previously Untreated Acute Lymphoblastic Leukemia, 674
- Nettesheim, P.** See Terzaghi, Nettesheim, and Riester, 4511
- Neumann, C. G., Jelliffe, D. B., Zervas, A. J., and Jelliffe, E. F. P.** Nutritional Assessment of the Child with Cancer, 699\*
- Neville, A. M.** See Gusterson, Warburton, Mitchell, Ellison, Neville, and Rudland, 4763
- Newbold, R. R., and McLachlan, J. A.** Vaginal Adenosis and Adenocarcinoma in Mice Exposed Prenatally or Neonatally to Diethylstilbestrol, 2003
- Newell, K. A.** See Bhuyan, Newell, Crampton, and Von Hoff, 3532
- Newman, M. S.** See Buhler, Unlu, Thakker, Slaga, Newman, Levin, Conney, and Jerina, 4779
- Newman, R. A.** See Hacker, Ersler, Newman, and Gamelli, 4490
- Ngan-Lee, J.** See Jarvis, Chapman, Ngan-Lee, Rutledge, Barr, and Paterson, 4358
- Nguyen, F.** See Corberand, Benckroun, Nguyen, Laharrague, and Pris, 1595
- Nguyen, T. V., Theiss, J. C., and Matney, T. S.** Exposure of Pharmacy Personnel to Mutagenic Antineoplastic Drugs, 4792
- Nichol, C. A.** See Duch, Edelstein, Bowers, and Nichol, 3987
- Nichols, S.** See Barranco, May, Boerwinkle, Nichols, Hokanson, Schumann, Gohde, Bryant, and Guseman, 2894
- Nichols, W. C.** See Ingle, Green, Ahmann, Edmonson, Nichols, Frytak, and Rubin, 3461\*\*
- Nicole, L. M.** See Landry, Bernier, Chrétien, Nicole, Tanguay, and Marceau, 2457
- Nicolson, G. L.** See Miner, Kawaguchi, Uba, and Nicolson, 4631
- Niell, H. B., Wood, C. A., Mickey, D. D., and Soloway, M. S.** Time- and Concentration-dependent Inhibition of the Clonogenic Growth of N-[4-(5-Nitro-2-furyl)-2-thiazolyl]formamide-induced Murine Bladder Tumor Cell Lines by cis-Diamminedichloroplatinum(II), 807
- Nielsen, J.** See Evans, Engel, Wheatley, and Nielsen, 3074
- Nielsen, O. S.** See Kamura, Nielsen, Overgaard, and Andersen, 1744
- Nielsen, O. S., and Overgaard, J.** Influence of Time and Temperature on the Kinetics of Thermotolerance in L<sub>1210</sub> Cells *In Vitro*, 4190
- Niimi, H.** See Fujita, Shinpo, Yamada, Sato, Niimi, Shamoto, Nagatsu, Takeuchi, and Umezawa, 309
- Niranjan, B. G.** See Bhat, Emeh, Niranjan, and Avadhani, 1876
- Nirmul, D.** See Pegoraro, Nirmul, and Joubert, 4812
- Nishigami, K.** See Onoda, Morikawa, Harada, Suzuki, Inoue, and Nishigami, 2867
- Nissen, N. I.** See Vindelev, Hansen, Gersel, Hirsch, and Nissen, 2499
- Nixon, D. W.** Hyperalimentation in the Undernourished Cancer Patient, 727\*. See also Richmond, Lawson, Nixon, Stevens, and Chawla, 3175
- Noguchi, T.** See Takada, Noguchi, Okabe, and Kajiyama, 4233
- Nomoto, K.** See Gomi, Morimoto, and Nomoto, 4197
- Nomura, A.** See Mower, Ichinotsubo, Wang, Mandel, Stemmerman, Nomura, Heilbrun, Kamiyama, and Shimada, 1164
- Noonan, J. J.** See Rose and Noonan, 35
- Norman, R. L., Muller-Eberhard, U., and Johnson, E. F.** Effect of Microsomal Cytochrome P-450 Isozyme Induction on the Mutagenic Activation of 2-Aminoanthracene, 1722
- Notman, J., Tan, Q. H., and Zedeck, M. S.** Inhibition of Methylazoxymethanol-induced Intestinal Tumors in the Rat by Pyrazole with Paradoxical Effects on Skin and Kidney, 1774
- Novelli, G. D.** See Griffin, Owen, Atchley, Novelli, and Solomon, 4505
- Novotny, A. R.** See Michalopoulos, Cianciulli, Novotny, Kligerman, Strom, and Jirtle, 4673
- Nungaray, G.** See Ibsen, Orlando, Garratt, Hernandez, Giorlando, and Nungaray, 888
- Nutter, L. M.** See Meisler, Nutter, and Thanassi, 3538

O

- Oberling, F.** See Stoll, Oberling, and Roth, 3240
- Obrecht, J.-P.** See Forster, Gudat, Girard, Albrecht, Schmidt, Ludwig, and Obrecht, 1927
- O'Brien, T. G.** See Sina, Bradley, and O'Brien, 4116
- O'Brien, T. G., Saladi, D., and Diamond, L.** Effects of Tumor-promoting Phorbol Diesters on Neoplastic Progression of Syrian Hamster Embryo Cells, 1233
- Occipinti, S. J.** See Shackney, Ford, Occipinti, Ritch, Riccardi, and Erickson, 4339
- O'Connor, P. J.** See Cooper, O'Connor, and Margison, 4203
- O'Dea, R. F.** See Pons, O'Dea, and Mirkin, 3719
- O'Dea, R. F., Pons, G., Hansen, J. A., and Mirkin, B. L.** Characterization of Protein Carboxyl-O-methyltransferase in the Spontaneous *in Vivo* Murine C-1300 Neuroblastoma, 4433
- Ogawa, M.** See Fujimoto, Ogawa, and Sakurai, 4079
- Ogawa, M.** See Kurihara, Ogawa, Ohta, Kurokawa, Kitahara, Kosaki, Watanabe, and Wada, 4836
- Ogiso, T.** See Takano, Shirai, Ogiso, Tsuda, Baba, and Ito, 4236
- Ogushi, F.** See Sone, Moriguchi, Shimizu, Ogushi, and Tsubura, 2227
- Ohnishi, T., Ohnuma, T., Takahashi, I., Scanlon, K., Kamen, B. A., and Holland, J. F.** Establishment of Methotrexate-resistant Human Acute Lymphoblastic Leukemia Cells in Culture and Effects of Folate Antagonists, 1655
- Ohnuma, T.** See Ohnishi, Ohnuma, Takahashi, Scanlon, Kamen, and Holland, 1655
- Ohsawa, N.** See Kondo and Ohsawa, 1549
- Ohta, T.** See Kurihara, Ogawa, Ohta, Kurokawa, Kitahara, Kosaki, Watanabe, and Wada, 4836
- Ohtake, S.** See Shionoya, Arai, Koyanagi, Ohtake, Kobayashi, Kodama, Kato, Tung, and Lin, 2872
- Oinuma, T.** See Asashima, Komazaki, Satou, and Oinuma, 3741
- Okabe, T.** See Takada, Noguchi, Okabe, and Kajiyama, 4233
- Okamoto, S.** See Yoshida, Yoshida, Fukunishi, Sato, Okamoto, and Matsumoto, 2434
- Okumura, H.** See Tsuchiya, Kobayashi, Goto, Okumura, Nakae, Konno, and Tada, 1530
- Olsson, I. L., and Breitman, T. R.** Induction of Differentiation of the Human Histiocytic Lymphoma Cell Line U-937 by Retinoic Acid and Cyclic Adenosine 3':5'-Monophosphate-inducing Agents, 3924
- Olsson, I. L., Breitman, T. R., and Gallo, R. C.** Priming of Human Myeloid Leukemic Cell Lines HL-60 and U-937 with Retinoic Acid for Differentiation Effects of Cyclic Adenosine 3':5'-Monophosphate-inducing Agents and a T-Lymphocyte-derived Differentiation Factor, 3928
- Olsson, O.** See Martin, Caignard, Olsson, Jeanin, and Leclerc, 3851
- Ong, D. E.** Purification and Partial Characterization of Cellular Retinol-binding Protein from Human Liver, 1033
- Onikul, S. R.** See Wang, Heacock, Onikul, Change-xue, Young, and Mannick, 416
- Onizuka, T.** See Kuroki, Hosomi, Munakata, Onizuka, Terauchi, and Nemoto, 1859
- Onnink, P. A.** See Hunt, Buckley, Onnink, Rolfe, and Laishes, 227



- Ono, J. See Auer, Ono, Nasiehl, Caspersson, Kato, Konaka, and Hayata, 4241
- Onoda, T., Morikawa, S., Harada, T., Suzuki, Y., Inoue, K., and Nishigami, K. Antitumor Activity of  $\alpha$ -Mannosamine *In Vitro*: Different Sensitivities among Human Leukemia Cell Lines Possessing T-Cell Properties, 2867
- Onoe, T. See Yokoyama, Kaneko, Dempo, Chisaka, Mori, and Onoe, 4158
- Ookhtens, M. See Lyon, Kannan, Ookhtens, and Baker, 132
- O'Quinn, A. G. See Barranco, Townsend, Costanzi, May, Baltz, O'Quinn, Leipzig, Hokanson, Guseman, and Boerwinkle, 2899
- Ordinas, A. See Bastida, Ordinas, Giardina, and Jamieson, 4348
- Oredsson, S. M., Deen, D. F., and Marton, L. J. Decreased Cytotoxicity of *cis*-Diamminedichloroplatinum(II) by  $\alpha$ -Difluoromethylornithine Depletion of Polyamines in 9L Rat Brain Tumor Cells *In Vitro*, 1296
- Orlando, R. A. See Ibsen, Orlando, Garratt, Hernandez, Giorlando, and Nungaray, 888
- Ormerod, E. J. See Rudland, Gusterson, Hughes, Ormerod, and Warburton, 5196
- Ortega, J. A. See Nesbit, Sather, Robison, Donaldson, Littman, Ortega, and Hammond, 674
- Osawa, Y., Tochigi, B., Higashiyama, T., Yarbrough, C., Nakamura, T., and Yamamoto, T. Multiple Forms of Aromatase and Response of Breast Cancer Aromatase to Antiplacental Aromatase II Antibodies, 3299\*\*
- Osborn, R. C. See Guzman, Osborn, Yang, DeOme, and Nandi, 2376
- Osborne, H. B., Bakke, A. C., and Yu, J. Effect of Dexamethasone on Hexamethylene Bisacetamide-induced Friend Cell Erythrodifferentiation, 513
- Osborne, R., and Tashjian, A. H., Jr. Modulation of Peptide Binding to Specific Receptors on Rat Pituitary Cells by Tumor-Promoting Phorbol Esters: Decreased Binding of Thyrotropin-Releasing Hormone and Somatostatin as well as Epidermal Growth Factor, 4375
- Osieka, R. See Seebor, Osieka, Schmidt, Achterath, and Crooke, 4719
- Otten, J. A. See Tennant, Otten, Myer, and Rascati, 3050
- Ottenbreit, M. J. See Inoue, Brown, Ravindranath, and Ottenbreit, 2906
- Ove, P. See Coetzee, Short, Klein, and Ove, 155
- Ovejera, A. A. See Slagel, Feola, Houchens, and Ovejera, 812
- Overgaard, J. See Kamura, Nielsen, Overgaard, and Andersen, 1744; Nielsen and Overgaard, 4190
- Owen, B. A. See Griffin, Owen, Atchley, Novelli, and Solomon, 4505
- Oxenhandler, R. W. See Berkelhammer, Oxenhandler, Hook, and Hennessy, 3157
- Oyasu, R. See Babaya, Miyata, Chmiel, and Oyasu, 15
- Ozawa, K. See Kano, Sakamoto, Kasahara, Kumamoto, Hida, Suda, Ozawa, Miura, and Takaku, 3090
- Ozols, R. F., Young, R. C., Speyer, J. L., Sugarbaker, P. H., Greene, R., Jenkins, J., and Myers, C. E. Phase I and Pharmacological Studies of Adriamycin Administered Intraperitoneally to Patients with Ovarian Cancer, 4265

P

- Paavola, L. G. See DiSorbo, Paavola, and Litwack, 2362
- Packer, S. See Fairchild, Greenberg, Watts, Packer, Atkins, Som, Hannon, Brill, Fand, and McNally, 556; Fairchild, Packer, Greenberg, Som, Brill, Fand, and McNally, 5126
- Page, D. L. See Duhl, Banjar, Briggs, Page, and Hnilica, 594; Schmidt, Gronert, Page, Briggs, and Hnilica, 3164
- Page, R. H. See Huseby and Page, 4332

- Pagliardi, G. L. See Tarella, Ferrero, Gallo, Pagliardi, and Ruscetti, 445
- Pala, M. See Parodi, Pala, Russo, Zunino, Balbi, Albini, Valerio, Cimberle, and Santi, 2277
- Palan, P. R. See Duttatupta, Romney, Palan, and Slagle, 2938
- Palitti, F., Matarese, G. P., Diana, G., Sorrentino, V., and Rossi, G. B. *In Vivo* Studies of Increased Incidence of Sister Chromatid Exchanges in Target Cells of Replication-competent Friend Murine Leukemia Virus, 4753
- Pallavicini, M. G., Gray, J. W., and Folstad, L. J. Quantitative Analysis of the Cytokinetic Response of KHT Tumors *In Vivo* to 1- $\beta$ -D-Arabinofuranosylcytosine, 3125
- Panko, W. B. See MacEwen, Patnaik, Harvey, and Panko, 2255; Syne, Markaverich, Clark, and Panko, 4443, 4449
- Pannacciuoli, I., Massa, G., Bogliolo, G., Ghio, R., and Sobrero, A. Effects of High-Dose Methotrexate and Leucovorin on Murine Hemopoietic Stem Cells, 530
- Pantazis, C. G. See Pierce, Pantazis, Caldwell, and Wells, 1082
- Papademetriou, V. See Bartocci, Read, Welker, Schlick, Papademetriou, and Chirigos, 3514
- Papadopoulos, D. See Montelius, Papadopoulos, Bengtsson, and Rydström, 1479
- Pardee, A. B. See Das, Lau, and Pardee, 4499
- Park, M. S. See Iwaki, Kasai, Terasaki, Bernoco, Park, Ciccirelli, Heintz, Saxton, Burk, and Morton, 409
- Park, S. S., Fujino, T., West, D., Guengerich, F. P., and Gelboin, H. V. Monoclonal Antibodies that Inhibit Enzyme Activity of 3-Methylcholanthrene-induced Cytochrome P-450, page 1798
- Parkanyi, C. See Politzer, Parkanyi, and Politzer, 4867
- Parks, S. F. See Ware, Paulson, Parks, and Webb, 1215
- Parmley, R. T. See Kikuchi, Takagi, Parmley, Ghanta, and Hiramoto, 1072
- Parodi, S., Pala, M., Russo, P., Zunino, A., Balbi, C., Albini, A., Valerio, F., Cimberle, M. R., and Santi, L. DNA Damage in Liver, Kidney, Bone Marrow, and Spleen of Rats and Mice Treated with Commercial and Purified Aniline as Determined by Alkaline Elution Assay and Sister Chromatid Exchange Induction, 2277
- Parsons, D. F., Marko, M., Braun, S. J., and Wansor, K. J. Asciites Tumor Invasion of Mouse Peritoneum Studied by High-Voltage Electron Microscope Stereoscopes, 4574
- Parsons, P. G., and Morrison, L. E. DNA Damage and Selective Toxicity of Dopa and Ascorbate: Copper in Human Melanoma Cells, 3783
- Parsons, P. G., Smellie, S. G., Morrison, L. E., and Hayward, I. P. Properties of Human Melanoma Cells Resistant to 5-(3',3'-Dimethyl-1-triazolo)imidazole-4-carboxamide and Other Methylating Agents, 1454
- Pasqualini, J. R. See Gulino and Pasqualini, 1913
- Patel, J. See Dac, Sinha, Nemoto, and Patel, 359; Evers, Patel, Madeja, Schneider, Hobika, Camiolo, and Markus, 219
- Paterson, A. R. P. See Harley, Paterson, and Cass, 1289; Jarvis, Chapman, Ngan-Lee, Rutledge, Barr, and Paterson, 4358
- Patnaik, A. K. See MacEwen, Patnaik, Harvey, and Panko, 2255
- Paul, A. See Berd, Mastrangelo, Engstrom, Paul, and Maguire, 4862
- Paul, R. D. See Distasio, Durden, Paul, and Nadji, 252
- Pauli, B. U., and Weinstein, R. S. Correlations between Cell Surface Protease Activities and Abnormalities of Occluding Junctions in Rat Bladder Carcinoma *In Vitro*, 2289
- Paulson, D. F. See Ware, Paulson, Parks, and Webb, 1215
- Pavelic, Z. See Berrigan, Marinello, Pavelic, Williams, Struck, and Gurtso, 3688; Zakrzewski, Pavelic, Greco, Bullard, Creaven, and Mihich, 2177

- Pearson, O. H. See Manni, Rainieri, Arafah, Finnegan, and Pearson, 3492
- Pearson, O. H., Manni, A., and Arafah, B. M. Antiestrogen Treatment of Breast Cancer: An Overview, 3424\*\*
- Pedrali-Noy, G., Belvedere, M., Crepaldi, T., Focher, F., and Spadari, S. Inhibition of DNA Replication and Growth of Several Human and Murine Neoplastic Cells by Aphidicolin without Detectable Effect upon Synthesis of Immunoglobulins and HLA Antigens, 3810
- Pegg, A. E. See Matsui and Pegg, 2990; Montesano, Rajewsky, Pegg, and Miller, 5236
- Pegoraro, R. J., Nirmul, D., and Joubert, S. M. Cytoplasmic and Nuclear Estrogen and Progesterone Receptors in Male Breast Cancer, 4812
- Peng, Y.-M. See Bowden, Garcia, Peng, and Alberts, 2660
- Pennypacker, J. P. See Kimata, Foidart, Pennypacker, Kleinman, Martin, and Hewitt, 2384
- Pepin, K. G. See Mastro and Pepin, 1630
- Perel, E., Blackstein, M. E., and Killinger, D. W. Aromatase in Human Breast Carcinoma, 3369\*\*
- Péris, J. See Debons-Guillemin, Launay, Roseto, and Péris, 1513
- Perlstein, J. See Bystry and Perlstein, 2232
- Perrella, F. W., Ashendel, C. L., and Boutwell, R. K. Specific High-Affinity Binding of the Phorbol Ester Tumor Promoter 12-O-Tetradecanoylphorbol-13-acetate to Isolated Nuclei and Nuclear Macromolecules in Mouse Epidermis, 3496
- Perry, S. T., Kulkarni, S. B., Lee, K.-L., and Kenney, F. T. Selective Effect of the Metalloproteinase Beryllium on Hormonal Regulation of Gene Expression in Cultured Cells, 473
- Pessano, S. See Cossu, Kuo, Pessano, Warren, and Cooper, 484
- Peterkofsky, B., and Prather, W. Correlation between the Rates of Aerobic Glycolysis and Glucose Transport, Unrelated to Neoplastic Transformation, in a Series of BALB 3T3-derived Cell Lines, 1809
- Peterson, C. See Andersson, Beran, Peterson, and Tribukait, 178
- Petro, T. M., and Watson, R. R. Resistance to L1210 Mouse Leukemia Cells in Moderately Protein-malnourished BALB/c Mice Treated *In Vivo* with Thymosin Fraction V, 2139
- Petrusz, P. See Wilson, French, and Petrusz, 243
- Pettigrew, N. M. See Fleming, Pettigrew, Matsuk, and Friesen, 3138
- Petzold, G. L. See Swenson, Li, Hurley, Rokem, Petzold, Dayton, Wallace, Lin, and Krueger, 2821
- Pfeil, H. See Bock, Lilienblum, Pfeil, and Eriksson, 3747
- Phillips, F. S. See Chou, Burchenal, Schmid, Braun, Su, Watanabe, Fox, and Phillips, 3957; Kelsen, Scher, Alcock, Leyland-Jones, Donner, Williams, Greene, Burchenal, Tan, Phillips, and Young, 4831
- Phillips, J. C., Bex, C., Lake, B. G., Cottrell, R. C., and Gangolli, S. D. Inhibition of Dimethylnitrosamine Metabolism by Some Heterocyclic Compounds and by Substrates and Inhibitors of Monoamine Oxidase in the Rat, 3761
- Phillips, J. R. See Cass, Selner, Ferguson, and Phillips, 4991
- Phillips, R. A. See Gallie, Holmes, and Phillips, 301
- Phillips, T. M. See Holohan, Phillips, Bowles, and Deisseroth, 3663
- Piacentini, M. J. See Sando, Hilfiker, Piacentini, and Lauffer, 1676
- Piedimonte, G., Borghetti, A. F., and Guidotti, G. G. Effect of Cell Density on Growth Rate and Amino Acid Transport in Simian Virus 40-Transformed 3T3 Cells, 4690
- Pierce, G. B., Pantazis, C. G., Caldwell, J. E., and Wells, R. S. Specificity of the Control of Tumor Formation by the Blastocyst, 1082
- Pierson, H. F. See Meadows, Pierson, Abdullah,

- and Desai, 3056
- Pihl, A.** See Fodstad and Pihl, 2152
- Pike, M. C.** See Henderson, Ross, Pike, and Casagrande, 3232
- Pinto, A.** See Fusco, Pinto, Tramontano, Tajana, Vecchio, and Tsuchida, 618
- Pinto, C. A.** See Spiegel, Blum, Levin, Pinto, Wernz, Speyer, Hoffman, and Muggia, 354
- Piper, A. A., and Fox, R. M.** Biochemical Basis for the Differential Sensitivity of Human T- and B-Lymphocyte Lines to 5-Fluorouracil, 3753
- Pitot, H. C.** See Althaus, Lawrence, Sattler, Longfellow, and Pitot, 3010; Campbell, Pitot, Potter, and Laishes, 465
- Pitt, P.** See Murray and Pitt, 3437\*\*
- Pittman, K.** See Comis, Issell, Pittman, Ginsberg, Rudolph, Aust, DiFino, Tinsley, Poiesz, and Crooke, 2944
- Pizzo, P. A.** See Levine, Brennan, Ramu, Fisher, Pizzo, and Glaubiger, 774\*
- Plagne, R.** See Godeneche, Moreau, Madelmont, Duprat, and Plagne, 525
- Plunkett, W.** See Avramis and Plunkett, 2587; Shewach and Plunkett, 3637
- Plunkett, W., Benjamin, R. S., Keating, M. J., and Freireich, E. J.** Modulation of 9- $\beta$ -D-Arabinofuranosyladenine 5'-Triphosphate and Deoxyadenosine Triphosphate in Leukemic Cells by 2'-Deoxycytidine during Therapy with 9- $\beta$ -D-Arabinofuranosyladenine, 2092
- Pocelinko, R.** See Alberts, Mackel, Pocelinko, and Salmon, 1170
- Poiesz, B. J.** See Comis, Issell, Pittman, Ginsberg, Rudolph, Aust, DiFino, Tinsley, Poiesz, and Crooke, 2944
- Poirier, M. C., True, B., and Laishes, B. A.** Formation and Removal of (Guan-8-yl)-DNA-2-Acetylaminofluorene Adducts in Liver and Kidney of Male Rats Given Dietary 2-Acetylaminofluorene, 1317
- Polidori, G.** See Chetsanga, Polidori, and Mainwaring, 2616
- Politzer, I. R.** See Politzer, Parkanyi, and Politzer, 4867
- Politzer, P., Parkanyi, C., and Politzer, I. R.** Fifth Annual Interdisciplinary Cancer Research Workshop, 4867, Meeting Report
- Pollack, A., Irvin, G. L., Block, N. L., Lipton, R. M., Stover, B. J., and Claffin, A. J.** Hormone Sensitivity of the R3327-G Rat Prostate Adenocarcinoma: Growth Rate, DNA Content, and Hormone Receptors, 2184
- Pollack, M. S., Vugrin, D., Hennessy, W., Herr, H. W., Dupont, B., and Whitmore, W. F., Jr.** HLA Antigens in Patients with Germ Cell Cancers of the Testis, 2470
- Pollard, M.** See Hittelman and Pollard, 4584
- Pollack, A.** See Galili, Leizerowitz, Moreb, Gamliel, Gurfel, and Pollack, 1433
- Pons, G.** See O'Dea, Pons, Hansen, and Mirkin, 4433
- Pons, G., O'Dea, R. F., and Mirkin, B. L.** Biological Characterization of the C-1300 Murine Neuroblastoma: An *In Vivo* Neural Crest Tumor Model, 3719
- Poole, A. R.** See Recklies, Mort, and Poole, 1026
- Poplack, D. G.** See Agarwal, Blot, Miser, Sallan, Lipton, Reaman, Holcenberg, and Poplack, 3884; Riccardi, Chabner, Glaubiger, Wood, and Poplack, 1736; Riccardi, Vigersky, Barnes, Bleyer, and Poplack, 1617
- Porter, C. W.** See Byczkowski, Zychlinski, and Porter, 3592
- Porter, C. W., Bergeron, R. J., and Stolowich, N. J.** Biological Properties of N<sup>4</sup>-Spermidine Derivatives and Their Potential in Anticancer Chemotherapy, 4072
- Porter, C. W., Dworaczek, D., and Gurtsoo, H. L.** Biochemical Localization of Aryl Hydrocarbon Hydroxylase in the Intestinal Epithelium of the Rat, 1283
- Poste, G.** See Fidler, Barnes, Fogler, Kirsh, Bugelski, and Poste, 496
- Poste, G., Bucana, C., Raz, A., Bugelski, P., Kirsh, R., and Fidler, I. J.** Analysis of the Fate of Systemically Administered Liposomes and Implications for Their Use in Drug Delivery, 1412
- Poste, G., Doll, J., Brown, A. E., Tzeng, J., and Zeidman, I.** Comparison of the Metastatic Properties of B16 Melanoma Clones Isolated from Cultured Cell Lines, Subcutaneous Tumors, and Individual Lung Metastases, 2770
- Pot-Deprun, J.** See Sweeney, Pot-Deprun, Poupon, and Chouroulinkov, 3776
- Potet, F.** See Labois, Augeron, Couturier-Turpin, Gaspach, Cheret, and Potet, 1541
- Potter, V. R.** See Campbell, Pitot, Potter, and Laishes, 465; Richards, Tsukada, and Potter, 1374, 5133
- Poupon, M-F.** See Sweeney, Pot-Deprun, Poupon, and Chouroulinkov, 3776
- Poussette, A.** See Björk, Forsgren, Gustafsson, Poussette, and Högberg, 1935
- Poussette, A., Carlström, K., Skolderfors, H., Wilking, N., and Theve, N. O.** Purification and Partial Characterization of a 17 $\beta$ -Estradiol-binding Macromolecule in the Human Pancreas, 633
- Powell, K. C.** See Buzdar, Powell, and Blumenstein, 3448\*\*
- Powles, T. J.** See Coombes, Chilvers, Dowsett, Gazet, Ford, Bettelheim, Gordon, Smith, Zava, Powles, and Investigators of the Collaborative Breast Cancer Project, 3415\*\*; Harris, Powles, and Smith, 3405\*\*
- Powles, T. J., Gordon, C., and Coombes, R. C.** Clinical Trial of Multiple Endocrine Therapy for Metastatic and Locally Advanced Breast Cancer with Tamoxifen-Aminoglutethimide-Danazol Compared to Tamoxifen Used Alone, 3458\*\*
- Poznansky, M. J., Shandling, M., Salkie, M. A., Elliott, J., and Lau, E.** Advantages in the Use of L-Asparaginase-Albumin Polymer as an Antitumor Agent, 1020
- Prager, M. D.** See Baechtel and Prager, 4959
- Prasad, K. N., and Edwards-Prasad, J.** Effects of Tocopherol (Vitamin E) Acid Succinate on Morphological Alterations and Growth Inhibition in Melanoma Cells in Culture, 550
- Prather, W.** See Peterkofsky and Prather, 1809
- Preisler, H. D.** See Early, Preisler, Slocum, and Rustum, 1587; Ho, Mayhew, Preisler, and Bardos, 1740
- Presant, C. A.** See Shively, Spayth, Chang, Metter, Klein, Presant, and Todd, 2506
- Prestayko, A. W.** See Galvan, Evans, Comis, Gottlieb, Gyorke, Lane, Prestayko, and Crooke, 1562; Galvan, Evans, Huang, Prestayko, Wu, and Crooke, 1555; Mirabelli, Beatrice, Huang, Prestayko, and Crooke, 1399; Sterling, DiPetrillo, Cutroneo, and Prestayko, 405
- Preston-Martin, S., Yu, M. C., Benton, B., and Henderso, B. E.** N-Nitroso Compounds and Childhood Brain Tumors: A Case Control Study, 5240
- Pretlow, T. G., II** See Whitehurst, Mashburn, Pretlow, Bradley, and Boohaker, 4300
- Pretlow, T. G., II, Whitehurst, G. B., Pretlow, T. P., Hunt, R. S., Jacobs, J. M., McKenzie, D. R., McDaniel, H. G., Hall, L. M., and Bradley, E. L., Jr.** Decrease in Creatine Kinase in Human Prostatic Carcinoma Compared to Benign Prostatic Hyperplasia, 4842
- Pretlow, T. P.** See Pretlow, Whitehurst, Pretlow, Hunt, Jacobs, McKenzie, McDaniel, Hall, and Bradley, 4842
- Preussmann, R., Habs, M., Habs, H., and Schmähl, D.** Carcinogenicity of N-Nitrosodiethanolamine in Rats at Five Different Dose Levels, 5167
- Price, J. A., and Smith, R. E.** Inhibition of Concanavalin A Response during Osteopetrosis Virus Infection, 3617
- Prince, L. O., and Campbell, T. C.** Effects of Sex Difference and Dietary Protein Level on the Binding of Aflatoxin B<sub>1</sub> to Rat Liver Chromatin Proteins *In Vivo*, 5053
- Princlair, G. L.** See Braatz, Scharfe, Princlair, and McIntire, 849
- Princlair, G. L., McIntire, K. R., and Braatz, J. A.** Identification and Purification of a Human Lung Tumor-associated Antigen from a Primary Lung Tumor, 843
- Priore, R.** See Bruno, Grindey, Zakrzewski, Priore, Kinahan, Moayeri, Ledesma, Mittelman, and Creaven, 4824
- Pris, J.** See Corberand, Benckroun, Nguyen, Laharrague, and Pris, 1595
- Procopio, A.** See Ruco, Procopio, Uccini, Marcorelli, and Baroni, 2063
- Provisor, A. J.** See Rickard, Baehner, Coates, Weetman, Provisor, and Grosfeld, 766\*
- Prunieras, M.** See Delescluse, Fürstenberger, Marks, and Prunieras, 1975
- Prusoff, W. H.** See Lin, Fischer, Marsh, and Prusoff, 1624
- Przepiorka, D.** See Mokyr, Przepiorka, and Dray, 2537
- Pui, C-H.** See Costlow, Pui, and Dahl, 4801
- Puju, S., Shuker, D. E. G., Bishop, W. W., Falchuk, K. R., Tannenbaum, S. R., and Thilly, W. G.** Mutagenicity of N-Nitroso Bile Acid Conjugates in *Salmonella typhimurium* and Diploid Human Lymphoblasts, 2601
- Purnell, D. M., Hillman, E. A., Heatfield, B. M., and Trump, B. F.** Immunoreactive Prolactin in Epithelial Cells of Normal and Cancerous Human Breast and Prostate Detected by the Unlabeled Antibody Peroxidase-Antiperoxidase Method, 2317

Q

- Quigley, J. P.** See Armstrong, Quigley, and Sidebottom, 1826
- Quillen, M.** See Rubin, Quillen, Corcoran, Gana-pathi, and Krishan, 1384
- Qureshi, S.** See Leung, Qureshi, and Leung, 5060
- Qureshi, S. A.** See Reddy, Lalwani, Reddy, and Qureshi, 259

R

- Rabes, H. M., Bücher, T., Hartmann, A., Linke, I., and Dünwald, M.** Clonal Growth of Carcinogen-induced Enzyme-deficient Preneoplastic Cell Populations in Mouse Liver, 3220
- Rabes, H. M., Wilhelm, R., Kerler, R., and Rode, G.** Dose- and Cell Cycle-dependent O<sup>6</sup>-Methylguanine Elimination from DNA in Regenerating Rat Liver after [<sup>14</sup>C]Dimethylnitrosamine Injection, 3814
- Racheksky, M. H., Hard, G. C., and Glick, M. C.** Membrane Glycoproteins from Chemically Transformed Cells: Comparison Between Mesenchymal and Epithelial Cell Lines Derived from Dimethylnitrosamine-treated Rat Kidney, 39
- Radwin, H. M.** See Shain, Gorelic, Boesel, Radwin, and Lamm, 4849
- Rahman, A., More, N., and Schein, P. S.** Doxorubicin-induced Chronic Cardiotoxicity and Its Protection by Liposomal Administration, 1817
- Raicht, R. F.** See Cohen, Raicht, and Fazzini, 5050
- Rainieri, J.** See Manni, Rainieri, Arafah, Finegan, and Pearson, 3492
- Rajewsky, M. F.** See Jähde and Rajewsky, 1505; Jähde, Rajewsky, and Baumgärtel, 1498; Montesano, Rajewsky, Pegg, and Miller, 5236
- Ramsay, R. G., Chen, P., Imray, F. P., Kidson, C., Lavin, M. F., and Hockey, A.** Familial Melanoma Associated with Dominant Ultraviolet Radiation Sensitivity, 2909
- Ramu, A.** See Levine, Brennan, Ramu, Fisher, Pizzo, and Glaubiger, 774\*
- Ranchalis, J. E.** See Twardzik, Ranchalis, and Todaro, 590

- Rand, N. See Cleaver, Char, Charles, and Rand, 1343
- Rao, M. S. See Scarpelli, Kokkinakis, Rao, Subbarao, Luetteke, and Hollenberg, 5089
- Rapaport, E., Schroder, E. W., Kabcenell, A. K., and Black, P. H. Correlation between Activation of Quiescent 3T3 Cells by Retinoic Acid and Increases in Uridine Phosphorylation and Cellular RNA Synthesis, 4918
- Rapp, H. J. See Yarkoni, Ashley, Zbar, Sugimoto, and Rapp, 2544
- Rapp, U. R. See Rizzino, Gonda, and Rapp, 1881
- Rapp, U. R., and Keski-Oja, J. Murine Leukemia Virus-mediated Transformation of a Mouse Epithelial Cell Line MMC-E, 2407
- Rascati, R. J. See Tennant, Otten, Myer, and Rascati, 3050
- Raso, V., Ritz, J., Basala, M., and Schlossman, S. F. Monoclonal Antibody-Ricin A Chain Conjugate Selectively Cytotoxic for Cells Bearing the Common Acute Lymphoblastic Leukemia Antigen, 457
- Rauscher, F., III See Grant, Rauscher, and Cadman, 4007; Grant, Rauscher, Margolin, and Cadman, 519
- Ravindranath, Y. See Inoue, Brown, Ravindranath, and Ottenbreit, 2906
- Ray, P. K., Raychaudhuri, S., and Allen, P. Mechanism of Regression of Mammary Adenocarcinomas in Rats following Plasma Adsorption over Protein A-Containing *Staphylococcus aureus*, 4970
- Ray-Chaudhuri, R. See Iype, Ray-Chaudhuri, Ljinsky, and Kelley, 4614
- Raychaudhuri, S. See Ray, Raychaudhuri, and Allen, 4970
- Raz, A. See Poste, Bucana, Raz, Bugelski, Kirsh, and Fidler, 1412
- Raz, A., and Geiger, B. Altered Organization of Cell-Substrate Contacts and Membrane-associated Cytoskeleton in Tumor Cell Variants Exhibiting Different Metastatic Capabilities, 5183
- Razzouk, C., Batardy-Grégoire, M., and Roberfroid, M. Metabolism of *N*-Hydroxy-2-acetylaminofluorene and *N*-Hydroxy-2-aminofluorene by Guinea Pig Liver Microsomes, 4712
- Read, E. L. See Bartocci, Read, Welker, Schlick, Papademetriou, and Chirigos, 3514
- Reaman, G. H. See Agarwal, Blatt, Miser, Sallan, Lipton, Reaman, Holcenberg, and Poplack, 3884
- Recklies, A. D., Mort, J. S., and Poole, A. R. Secretion of a Thiol Proteinase from Mouse Mammary Carcinomas and Its Characterization, 1026
- Reddy, J. K. See Becich and Reddy, 3729
- Reddy, J. K., Lalwani, N. D., Reddy, M. K., and Qureshi, S. A. Excessive Accumulation of Autofluorescent Lipofuscin in the Liver during Hepatocarcinogenesis by Methyl Clofenapate and Other Hypolipidemic Peroxisome Proliferators, 259
- Reddy, M. K. See Reddy, Lalwani, Reddy, and Qureshi, 259
- Redgrave, S. See Moore, Hicks, Knowles, and Redgrave, 642
- Reedijk, J. See Brouwer, Fichtinger-Schepman, van de Putte, and Reedijk, 2416
- Regulski, M. R. See Jaspers, de Wit, Regulski, and Bootsma, 335
- Reid, B. O. See Milas, Hunter, Reid, and Thames, 1888
- Reid, G. See Mountford, Grossman, Reid, and Fox, 2270
- Reinke, L. A., McManus, P., Kauffman, F. C., and Thurman, R. G. Benzo(a)pyrene Phenol Production by Perfused Rat Liver and Its Inhibition by Ethanol, 1681
- Relyea, N. M. See Dizik, Relyea, and Wainfan, 4064
- Rennie, M. J. See Lundholm, Bennegård, Edén, Svaninger, Emery, and Rennie, 4807
- Reutter, W. See Büchsel and Reutter, 2450
- Revillard, J.-P. See Danel, Cordier, Revillard, and Saez, 4701
- Revoltella, R. See Monaco, Vigneti, Lancieri, Cornaglia-Ferraris, Lambertenghi-Deliliers, and Revoltella, 4182
- Reynolds, C. P., Reynolds, D. A., Frenkel, E. P., and Smith, R. G. Selective Toxicity of 6-Hydroxydopamine and Ascorbate for Human Neuroblastoma *In Vitro*: A Model for Clearing Marrow Prior to Autologous Transplant, 1331
- Reynolds, D. A. See Reynolds, Reynolds, Frenkel, and Smith, 1331
- Rhee, J. G., Song, C. W., and Levitt, S. H. Changes in Thermosensitivity of Mouse Mammary Carcinoma following Hyperthermia *In Vivo*, 4485
- Rhode, S. L., III See Toolan, Rhode, and Gierthy, 2552
- Riccardi, R. See Shackney, Ford, Occhipinti, Ritch, Riccardi, and Erickson, 4339
- Riccardi, R., Chabner, B., Glaubiger, D. L., Wood, J., and Poplack, D. G. Influence of Tetrahydrouridine on the Pharmacokinetics of Intrathecally Administered 1- $\beta$ -D-Arabinofuranosylcytosine, 1736
- Riccardi, R., Vigersky, R. A., Barnes, S., Bleyer, W. A., and Poplack, D. G. Methotrexate Levels in the Interstitial Space and Seminiferous Tubule of Rat Testis, 1617
- Richards, G. See Lipton, Harvey, Santen, Boucher, White, Bernath, Dixon, Richards, and Shafik, 3434\*\*
- Richards, G. F. See Chee, Yonemoto, Leong, Richards, Smith, Klotz, Goto, Gascon, and Drushella, 3142
- Richards, W. L., and Astrup, E. G. Expression of  $\gamma$ -Glutamyl Transpeptidase Activity in the Developing Mouse Tooth, Intervertebral Disc, and Hair Follicle, 4143
- Richards, W. L., Tsukada, Y., and Potter, V. R.  $\gamma$ -Glutamyl Transpeptidase and  $\alpha$ -Fetoprotein Expression during  $\alpha$ -Naphthylthiocyanate-induced Hepatotoxicity in Rats, 5133; Phenotypic Diversity of  $\gamma$ -Glutamyltranspeptidase Activity and Protein Secretion in Hepatoma Cell Lines, 1374
- Richardson, C. L. See Glazer, Hartman, and Richardson, 117
- Richmond, A., Lawson, D. H., Nixon, D. W., Stevens, J. S., and Chawla, R. K. *In Vitro* Growth Promotion in Human Malignant Melanoma Cells by Fibroblast Growth Factor, 3175
- Richter, H. See Fürstenberger, Richter, Argyris, and Marks, 342
- Rickard, K. A., Baehner, R. L., Coates, T. D., Weetman, R. M., Provisor, A. J., and Grosfeld, J. L. Supportive Nutritional Intervention in Pediatric Cancer, 766\*
- Riester, L. See Terzaghi, Nettesheim, and Riester, 4511
- Rijksen, G. See Beemer, Vlug, Rijksen, Hamburg, and Staal, 4228
- Ringborg, U. See Lewensohn, Ringborg, and Hansson, 84
- Ritch, P. S. See Shackney, Ford, Occhipinti, Ritch, Riccardi, and Erickson, 4339
- Ritz, J. See Raso, Ritz, Basala, and Schlossman, 457
- Rivest, R. S., Irwin, D., and Mandel, H. G. 3-Deazaguanine: Inhibition of Initiation of Translation in L1210 Cells, 4039
- Rizzino, A., Gonda, M. A., and Rapp, U. R. Dome Formation by a Retrovirus-induced Lung Adenocarcinoma Cell Line, 1881
- Roberfroid, M. See Razzouk, Batardy-Grégoire, and Roberfroid, 4712
- Robertson, A. M., Lee, S. P., Lindop, R., Stanley, R. A., Thomson, L., and Tasman-Jones, C. Biliary Control of  $\beta$ -Glucuronidase Activity in the Luminal Contents of the Rat Ileum, Cecum, and Rectum, 5165
- Roberts, A. B. See Anzano, Roberts, Meyers, Komoriya, Lamb, Smith, and Sporn, 4776
- Roberts, B. J. See Corbett, Leopold, Dykes, Roberts, Griswold, and Schabel, 1707
- Robertson, I. G. C. See Guthrie, Robertson, Zeiger, Boyd, and Eling, 1620
- Robertson, K. A. Alkylation of *N*<sup>2</sup> in Deoxyguanosine by Dehydroretrotronecine, a Carcinogenic Metabolite of the Pyrrolizidine Alkaloid Monocrotaline, 8
- Robey, W. G. See Fischinger, Thiel, Lieberman, Kaplan, Dunlop, and Robey, 4650
- Robey, W. G., Kuenzel, W. J., Vande Woude, G. F., and Fischinger, P. J. Growth of Murine Sarcoma and Murine Xenotropic Leukemia Viruses in Japanese Quail: Induction of Tumors and Development of Continuous Tumor Cell Lines, 2523
- Robins, H. I. See Earhart, Tutsch, Koeller, Rodriguez, Robins, Vogel, Davis, and Tormey, 5255
- Robinson, A. See Scher, Scher, Robinson, and Waxman, 1300
- Robinson, C. H. See Marcotte and Robinson, 3322\*\*
- Robinson, R. A., Branum, E. L., Volkenant, M. E., and Moses, H. L. Cell Cycle Variation in <sup>125</sup>I-labeled Epidermal Growth Factor Binding in Chemically Transformed Cells, 2633
- Robinson, W. A. See Glode, Robinson, Hartmann, Klein, Thomas, and Morton, 4270
- Robison, L. L. See Nesbit, Sather, Robison, Donaldson, Littman, Ortega, and Hammond, 674
- Robison, L. L., Arthur, D. C., Ball, D. W., Danzi, T. J., and Nesbit, M. E. Cytogenetic Studies of Long-Term Survivors of Childhood Acute Lymphoblastic Leukemia, 4289
- Robison, S. H. See Costa, Heck, and Robison, 2757
- Rochant, H. See Testa, Henri, Betteaibe, Titeux, Vainchenker, Thontat, Docklear, and Rochant, 4694
- Rochefort, H. See Coezy, Borgna, and Rochefort, 317; Vic, Vignon, Derocq, and Rochefort, 667
- Rode, G. See Rabes, Wilhelm, Kerler, and Rode, 3814
- Rodriguez, R. See Earhart, Tutsch, Koeller, Rodriguez, Robins, Vogel, Davis, and Tormey, 5255
- Roebuck, B. D. See Longnecker, Curphey, Kuhlmann, and Roebuck, 19
- Rogers, C. See Witkoski, Kepner, Leitzel, Rogers, Jefferson, and Lipton, 2350
- Rokem, J. S. See Swenson, Li, Hurley, Rokem, Petzold, Dayton, Wallace, Lin, and Krueger, 2821
- Rolle, P. B. See Hunt, Buckley, Onnink, Rolle, and Laishes, 227
- Romney, S. L. See Duttgupta, Romney, Palan, and Slagle, 2938
- Ronot, X., Adolphe, M., Kuch, D., Jaffray, P., Lechat, P., and Deysson, G. Effect of Sodium *cis*- $\beta$ -4-Methoxybenzoyl- $\beta$ -bromacrylate (Cytemba) on Hela Cell Kinetics, 3193
- Rood, J. J. v. See Derks, Hofmans, Bruning, and Rood, 681
- Roos, G. See Marklund, Westman, Lundgren, and Roos, 1955
- Roos, I. A. G. See Sutton, Roos, and Hillcoat, 5172
- Roosendaal, K. J. See van Beek, Tulp, Egbers-Bogaards, Roosendaal, and Smets, 5222
- Rose, D. P., and Noonan, J. J. Influence of Prolactin and Growth Hormone on Rat Mammary Tumors Induced by *N*-Nitrosomethylurea, 35
- Roseman, J. See Barger, Acton, Soong, Roseman, and Balch, 4276
- Rosen, H. R. See Santen, Santner, Tilsen-Mallett, Rosen, Samojlik, and Veldhuis, 3353\*\*
- Rosen, J. M. See Supowit and Rosen, 1355
- Rosenberg, B. See Luckett and Rosenberg, 3565
- Rosenberg, S. A. See Brown, Shoffner, Tondreau, Matthews, Terry, and Rosenberg, 2216; Mazumder, Grimm, Zhang, and Rosenberg, 913
- Rosenberger, J. A. See Guffy, Rosenberger, Simon, and Burns, 3625



- Roseto, A. See Debons-Guillemin, Launay, Roseto, and Périès, 1513
- Ross, R. K. See Henderson, Ross, Pike, and Casagrande, 3232
- Rosse, C. See Lee and Rosse, 1255
- Rossen, R. D. See Morgan, Rossen, McCormick, Stehlin, and Giovannella, 881
- Rossi, G. B. See Palitti, Matarese, Diana, Sorrentino, and Rossi, 4753
- Roth, J. A., and Wesley, R. A. Human Tumor-associated Antigens Detected by Serological Techniques: Analysis of Autologous Humoral Immune Responses to Primary and Metastatic Human Sarcomas by an Enzyme-linked Immunosorbent Solid-Phase Assay (ELISA), 3978
- Roth, M.-P. See Stoll, Oberling, and Roth, 3240
- Roth, R. W. See Martin, Beland, Roth, and Kadlubar, 2678
- Rouse, R. V. See Frankel, Rouse, Wang, Chu, and Herzenberg, 3714
- Rowley, J. D. See Kaneko, Rowley, Variakojis, Chilcote, Check, and Sakurai, 2918
- Royston, I. See Dillman, Handley, and Royston, 1368
- Rubin, H. Effect of Magnesium Content on Density-dependent Regulation of the Onset of DNA Synthesis in Transformed 3T3 Cells, 1761
- Rubin, I., Getz, G., and Swift, H. Alteration of Protein Synthesis and Induction of Specific Protein Phosphorylation by Hyperthermia, 1395
- Rubin, J. See Ingle, Green, Ahmann, Edmonson, Nichols, Frytak, and Rubin, 3461\*\*
- Rubin, R. W. See Kozlovskis, Claflin, Fletcher, McKinney, and Rubin, 2748
- Rubin, R. W., Quillen, M. C., Corcoran, J. J., Ganapathi, R., and Krishan, A. Tubulin as a Major Cell Surface Protein in Human Lymphoid Cells of Leukemic Origin, 1384
- Rubinstein, L. V. See Arbeit, Burt, Rubinstein, Gorschoth, and Brennan, 4936
- Rucco, L. P., Procopio, A., Uccini, S., Marcorelli, E., and Baroni, C. D. Natural Killer Activity in Spleens and Lymph Nodes from Patients with Hodgkin's Disease, 2063
- Rudders, R. A., Ahl, E. T., Jr., Delellis, R. A., Bernstein, S., and Begg, C. B. Surface Marker Identification of Small Cleaved Follicular Center Cell Lymphomas with a Highly Favorable Prognosis, 349
- Rudland, P. S. See Gusterson, Warburton, Mitchell, Ellison, Neville, and Rudland, 4763
- Rudland, P. S., Gusterson, B. A., Hughes, C. M., Ormerod, E. J., and Warburton, M. J. Two Forms of Tumors in Nude Mice Generated by a Neoplastic Rat Mammary Stem Cell Line, 5196
- Rudnick, S. A. See Keefe, Capizzi, and Rudnick, 1641
- Rudolph, A. See Comis, Issell, Pittman, Ginsberg, Rudolph, Aust, DiFino, Tinsley, Poiesz, and Crooke, 2944
- Runice, C. E. See Birt, Lawson, Julius, Runice, and Salmasi, 4455
- Ruoslahti, E. See Engvall, Miyashita, and Ruoslahti, 2028; Jones, Ruoslahti, Schold, and Bigner, 168; Lange, Millán, Stigbrand, Vessella, Ruoslahti, and Fishman, 3244; Millán, Stigbrand, Ruoslahti, and Fishman, 2444
- Ruscetti, F. W. See Ferrero, Tarella, Gallo, Ruscetti, and Breitman, 4421; Tarella, Ferrero, Gallo, Pagliardi, and Ruscetti, 445
- Russo, A. See Kinsella, Mitchell, McPherson, Russo, and Tietze, 3950
- Russo, P. See Parodi, Pala, Russo, Zunino, Balbi, Albini, Valerio, Cimberle, and Santi, 2277
- Russo, R. G. See Terranova, Liotta, Russo, and Martin, 2265
- Rustum, Y. M. See Au, Rustum, Ledesma, Mittelman, and Creaven, 2930; Early, Preisler, Slocum, and Rustum, 1587
- Rutherford, C. L. See Larner and Rutherford, 1661
- Rutledge, K. A. See Jarvis, Chapman, Ngan-Lee,

- Rutledge, Barr, and Paterson, 4358
- Ryan, K. J. Biochemistry of Aromatase: Significance to Female Reproductive Physiology, 3342\*\*
- Rydström, J. See Montelius, Papadopoulos, Bengtsson, and Rydström, 1479

## S

- Saavedra, J. E. See Farrelly, Stewart, Saavedra, and Lijinsky, 2105
- Sadatsune, K. See Iwata-Dohi, Esumi-Kurisu, Ikenami, Sadatsune, Mizuno, and Yamazaki, 3196
- Sadler, J. G. See Sloane, Honn, Sadler, Turner, Kimpson, and Taylor, 980
- Sadlik, J. R. See Hadden, Sadlik, Coffey, and Hadden, 3064
- Saez, S. See Danel, Cordier, Revillard, and Saez, 4701
- Saffer, E. A. See Fisher, Gunduz, Zheng, and Saffer, 540
- Sager, R. See Smith and Sager, 389
- Saikusa, H. See Fujiwara, Saikusa, Yasuno, and Kitagawa, 1487
- Saita, T. See Nakao, Matsuda, Fujita, Watanabe, Morikawa, Saita, and Ito, 3843
- Saito, M. See Seto, Umemoto, Saito, Masuho, Hara, and Takahashi, 5209
- Saito, S. See Abe, Saito, Hori, Suzuki, and Sato, 2846
- Sakakibara, K., Suzuki, T., Motoyama, T., Watanabe, H., and Nagai, Y. Biosynthesis of an Interstitial Type of Collagen by Cloned Human Gastric Carcinoma Cells, 2019
- Sakamoto, S. See Kano, Sakamoto, Kasahara, Kusumoto, Hida, Suda, Ozawa, Miura, and Takaku, 3090
- Sakita, T. See Koyama, Yoshioka, and Sakita, 3215
- Sakurai, M. See Kaneko, Rowley, Variakojis, Chilcote, Check, and Sakurai, 2918
- Sakurai, Y. See Fujimoto, Ogawa, and Sakurai, 4079; Fukui, Inaba, Tsukagoshi, and Sakurai, 1098; Inaba, Fukui, Yoshida, Tsukagoshi, and Sakurai, 1103; Tsuruo, Hori, Iida, Tsukagoshi, and Sakurai, 2250; Tsuruo, Iida, Tsukagoshi, and Sakurai, 1462, 4730
- Saladik, D. See O'Brien, Saladik, and Diamond, 1233
- Salas, C. E., Uechmann, B. D., and Leboy, P. S. Methyl-accepting RNA in 13762 Mammary Adenocarcinoma Correlated with Low Adenine Methyltransferase Levels, 5004
- Salhanick, H. A. Basic Studies on Aminoglutethimide, 3315\*\*
- Salkie, M. A. See Poznansky, Shandling, Salkie, Elliott, and Lau, 1020
- Sallan, S. See Agarwal, Blatt, Miser, Sallan, Lipton, Reaman, Holcenberg, and Poplack, 3884
- Salmasi, S. See Birt, Lawson, Julius, Runice, and Salmasi, 4455
- Salmon, S. E. See Ahmann, Meyskens, Moon, Durie, and Salmon, 4495; Alberts, Mackel, Pocelinko, and Salmon, 1170
- Salomon, D. S. See Zwiebel, Davis, Kohn, Salomon, and Kidwell, 5117
- Samak, R. See Israël, Samak, Edelstein, Amouroux, Battesti, and de Saint Florent, 2489
- Samojlik, E. See Santen, Santner, Tilsen-Mallett, Rosen, Samojlik, and Veldhuis, 3353\*\*
- Santen, R. J., Samojlik, E., and Harvey, H. Effects of Combinations of Drugs Having Different Modes of Action at the Ribonucleotide Reductase Site on Growth of L1210 Cells in Culture, 4353
- Sato, B. See Yoshida, Yoshida, Fukunishi, Sato, Okamoto, and Matsumoto, 2434
- Sato, H. See Abe, Saito, Hori, Suzuki, and Sato, 2846
- Sato, J. See Nakabayashi, Taketa, Miyano, Yamane, and Sato, 3858
- Sato, S. See Esumi, Takahashi, Seki, Sato, Nagase, and Sugimura, 306
- Sato, T. See Fujita, Shino, Yamada, Sato, Niimi, Shamoto, Nagatsu, Takeuchi, and Umezawa, 309
- Satou, C. See Asashima, Komazaki, Satou, and Oinuma, 3741
- Sattler, G. L. See Althaus, Lawrence, Sattler, Longfellow, and Pitot, 3010
- Satyawarop, P. G., and Mortel, R. Failure of Progesterone to Induce Estradiol Dehydrogenase Activity in Endometrial Carcinoma, *in Vitro*, 1322
- Sauer, H. See Dörmer, Sauer, Schalhörn, and Wilmanns, 1604
- Sauer, L. A., Stayman, J. W., III, and Dauchy, R. T. Amino Acid, Glucose, and Lactic Acid Util-



- zation *In Vivo* by Rat Tumors, 4090
- Sauermann, G.** See Elbling and Sauermann, 3486
- Savary, C. A.** See Lotzová, Savary, Guterman, and Hersh, 2480
- Sawicki, W. L.** See Weir, Cashmore, Dreyer, Graham, Hsiao, Moroson, Sawicki, and Bertino, 1696
- Sawyer, R. C.** See Martin, Stolfi, Sawyer, Spiegelman, and Young, 3964
- Saxton, R. E.** See Iwaki, Kasai, Terasaki, Bernoco, Park, Ciciarelli, Heintz, Saxton, Burk, and Morton, 409
- Scanlon, K.** See Ohnoshi, Ohnuma, Takahashi, Scanlon, Kamen, and Holland, 1655
- Scarpelli, D. G., Kokkinakis, D. M., Rao, M. S., Subbarao, V., Luetke, N., and Hollenberg, P. F.** Metabolism of the Pancreatic Carcinogen *N*-Nitroso-2,6-Dimethylmorpholine by Hamster Liver and Component Cells of Pancreas, 5089
- Scavennec, J., Maraninchi, D., Gastaut, J.-A., Carcassonne, Y., and Cailla, H. L.** Purine and Pyrimidine Ribonucleoside Monophosphate Patterns of Peripheral Blood and Bone Marrow Cells in Human Acute Leukemias, 1326
- Schaaper, R. M., Glickman, B. W., and Loeb, L. A.** Role of Depurination in Mutagenesis by Chemical Carcinogens, 3480
- Schabel, F. M., Jr.** See Corbett, Leopold, Dykes, Roberts, Griswold, and Schabel, 1707
- Schacter, B. A., and Kurz, P.** Alterations in Hepatic and Splenic Microsomal Electron Transport System Components, Drug Metabolism, Heme Oxygenase Activity, and Cytochrome P-450 Turnover in Murphy-Sturm Lymphosarcoma-bearing Rats, 3557
- Schade, D.** See Weiss, McGovern, Schade, and Kufe, 3892
- Schaefer, F. V., Custer, R. P., and Sorof, S.** General Process of Induction of Squamous Metaplasia by Cyclic Adenine Nucleotide and Prostaglandins: Mouse Prostate Glands, 3682
- Schalhorn, A.** See Dörmer, Sauer, Schalhorn, and Wilmanns, 1604
- Scharfe, T. R.** See Braatz, Scharfe, Princler, and McIntire, 849
- Schartl, M.** See Barnekow, Schartl, Anders, and Bauer, 2429
- Schartl, M., Barnekow, A., Bauer, H., and Anders, F.** Correlations of Inheritance and Expression between a Tumor Gene and the Cellular Homolog of the Rous Sarcoma Virus-transforming Gene in *Xiphophorus*, 4222
- Schein, P. S.** See Ahlgren, Green, Tew, and Schein, 2605; Rahman, More, and Schein, 1817
- Scheinberg, D. A., and Strand, M.** Leukemic Cell Targeting and Therapy by Monoclonal Antibody in a Mouse Model System, 44
- Schellhammer, P. F.** See Starling, Sieg, Beckett, Schellhammer, Ladaga, and Wright, 3084
- Scher, B. M., Scher, W., Robinson, A., and Waxman, S.** DNA Ligase and DNase Activities in Mouse Erythroleukemia Cells during Dimethyl Sulfoxide-induced Differentiation, 1300
- Scher, H.** See Kelsen, Scher, Alcock, Leyland-Jones, Donner, Williams, Greene, Burchenal, Tan, Phillips, and Young, 4831
- Scher, W.** See Scher, Scher, Robinson, and Waxman, 1300
- Scherstén, T.** See Bennegård, Edén, Ekman, Scherstén, and Lundholm, 4293; Karlberg, Ekman, Edström, Scherstén, and Lundholm, 2284
- Schiffer, L. M.** See Braunschweiger, Ting, and Schiffer, 1686
- Schilsky, R. L., Kelley, J. A., Ihde, D. C., Howser, D. M., Cordes, R. S., and Young, R. C.** Phase I Trial and Pharmacokinetics of Aziridinylbenzoquinone (NSC 182986) in Humans, 1582
- Schirmacher, V., and Waller, C. A.** Quantitative Determination of Disseminated Tumor Cells by [<sup>3</sup>H]Thymidine Incorporation *In Vitro* and by Agar Colony Formation, 660
- Schlag, P., and Schreml, W.** Heterogeneity in Growth Pattern and Drug Sensitivity of Primary Tumor and Metastases in the Human Tumor Colony-forming Assay, 4086
- Schlick, E.** See Bartocci, Read, Welker, Schlick, Papademetriou, and Chirigos, 3514
- Schlossman, S. F.** See Raso, Ritz, Basala, and Schlossman, 457
- Schmähli, D.** See Preussmann, Habs, Habs, and Schmähli, 5167
- Schmid, F. A.** See Chou, Burchenal, Schmid, Braun, Su, Watanabe, Fox, and Phillips, 3957
- Schmidt, C.-G.** See Seiber, Osieka, Schmidt, Achterrath, and Crooke, 4719
- Schmidt, J.** See Forster, Gudat, Girard, Albrecht, Schmidt, Ludwig, and Obrecht, 1927
- Schmidt, L. J.** See Courtney, Schmidt, and Getz, 569
- Schmidt, T. J.** See Harmon, Schmidt, and Thompson, 2110
- Schmidt, W. N., Gronert, B. J., Page, D. L., Briggs, R. C., and Hnilica, L. S.** Antigenic Changes in Nohistone Proteins during Azo Dye Hepatocarcinogenesis, 3164
- Schmidt, W. N., and Hnilica, L. S.** Distribution of Novikoff Ascites Hepatoma Antigens p39 and p49 in Various Tumorigenic Cell Lines, 1441
- Schnabel, S. J.** See Blackburn, Schnabel, Danley, Hogue-Angeletti, and Sorof, 4664
- Schneider, G.** See Kirschner, Schneider, Ertel, and Worton, 3281\*\*
- Schneider, S. L.** See Evers, Patel, Madeja, Schneider, Hobika, Camilo, and Markus, 219
- Schneider, W. C.** See Chakrabarty, Chattopadhyay, and Schneider, 421
- Schold, S. C.** See Jones, Ruoslahti, Schold, and Bigner, 168
- Schpok, S. L. F.** See Li, Swenson, Schpok, Kuentzel, Dayton, and Krueger, 999
- Schreiber, H.** See Shapiro, Leibson, Loken, and Schreiber, 2622
- Schreml, W.** See Schlag and Schreml, 4086
- Schroder, E. W.** See Rapaport, Schroder, Kabenell, and Biack, 4918
- Schroit, A. J., and Fidler, I. J.** Effects of Liposome Structure and Lipid Composition on the Activation of the Tumoricidal Properties of Macrophages by Liposomes Containing Muramyl Dipeptide, 161
- Schultz-Maurer, B.** See Lengsfeld, Dietrich, and Schultz-Maurer, 3798
- Schumann, J.** See Barranco, May, Boerwinkle, Nichols, Hokanson, Schumann, Göhde, Bryant, and Guseman, 2894
- Schumm, D. E., and Webb, T. E.** Putative Transformation-dependent Proteins in the Blood Plasma of Tumor-bearing Rats and Cancer Patients, 4964
- Schwartz, E. L., and Sartorelli, A. C.** Structure-Activity Relationships for the Induction of Differentiation of HL-60 Human Acute Promyelocytic Leukemia Cells by Anthracyclines, 2651
- Schwartz, P. E.** See Lazo, Boland, and Schwartz, 4026
- Schwartz, R.** See Kleiner, Zwelling, Schwartz, and Muchmore, 1692
- Schwartz, S. A., Morgenstern, B., and Capizzi, R. L.** Schedule-dependent Synergy and Antagonism between High-Dose 1- $\beta$ -D-Arabinofuranosylcytosine and Asparaginase in the L5178Y Murine Leukemia, 2191
- Schweinsberg, F.** See Hodgson, Schweinsberg, Wiessler, and Kleihues, 2836
- Schweizer, J.** See Hasper, Müller, and Schweizer, 2034
- Schweizer, J., and Winter, H.** Changes in Regional Keratin Polypeptide Patterns during Phorbol Ester-mediated Reversible and Permanently Sustained Hyperplasia of Mouse Epidermis, 1517
- Scott, R. E.** See Wille, Maercklein, and Scott, 5139
- Sears, H. F.** See Atkinson, Ernst, Herlyn, Stepewski, Sears, and Koprowski, 4820
- Sebolt, J.** See Denton, Lui, Aoki, Sebolt, Takeda, Eble, Glover, and Weber, 1176
- See, Y. P., Sun, A. M., McComb, D. J., Gerrie, B., and Kovacs, K.** Ultrastructural Differentiation in the Nude Mouse of Transformed Cells Isolated from the Human Fetal Pituitary Gland, 2336
- Seiber, S., Osieka, R., Schmidt, C.-G., Achterrath, W., and Crooke, S. T.** *In Vivo* Resistance towards Anthracyclines, Etoposide and cis-Diamminedichloroplatinum (II), 4719
- Segaloff, A.**  $\Delta^1$ -Testololactone: Clinical Trials, 3387\*\*
- Seki, M.** See Esumi, Takahashi, Seki, Sato, Nagase, and Sugimura, 306
- Selby, P. J., and Steel, G. G.** Use of the Agar Diffusion Chamber for the Exposure of Human Tumor Cells to Drugs, 4758
- Selner, M.** See Cass, Selner, Ferguson, and Phillips, 4991
- Seon, B. K.** See Negoro and Seon, 4259
- Seto, M., Umemoto, N., Saito, M., Masuho, Y., Hara, T., and Takahashi, T.** Monoclonal Anti-MM46 Antibody: Ricin A Chain Conjugate: *In Vitro* and *In Vivo* Antitumor Activity, 5209
- Shackney, S. E., Ford, S. S., Occhipinti, S. J., Ritch, P. S., Riccardi, R., and Erickson, B. W., Jr.** Schedule Optimization of Hydroxyurea and 1- $\beta$ -D-Arabinofuranosylcytosine in Sarcoma 180 *In Vitro*, 4339
- Shaddix, S. C.** See White, Shaddix, Brockman, and Bennett, 2260
- Shafik, A. S.** See Harvey, Lipton, White, Santen, Boucher, Shafik, Dixon, and Members of The Central Pennsylvania Oncology Group, 3451\*\*
- Shafik, R.** See Chambers, Shafik, and Ling, 4018
- Shah, H.** See Yoshida, Shah, and Weinhouse, 3526
- Shahinian, A. H.** See Spears, Shahinian, Moran, Heidelberger, and Corbett, 450
- Shain, S. A., Gorelic, L. S., Boesel, R. W., Radwin, H. M., and Lamm, D. L.** Human Prostate Androgen Receptor Quantitation: Effects of Temperature on Assay Parameters, 4849
- Shami, S. G., Thibodeau, L. A., Kennedy, A. R., and Little, J. B.** Proliferative and Morphological Changes in the Pulmonary Epithelium of the Syrian Golden Hamster during Carcinogenesis Initiated by <sup>210</sup>Po  $\alpha$ -radiation, 1405
- Shamoto, M.** See Fujita, Shimo, Yamada, Sato, Niimi, Shamoto, Nagatsu, Takeuchi, and Umezawa, 309
- Shand, D. G.** See Kaelin, Shrivastav, Shand, and Jirtle, 3944
- Shandling, M.** See Poznansky, Shandling, Salkie, Elliott, and Lau, 1020
- Shapiro, J. R.** See Yung, Shapiro, and Shapiro, 992
- Shapiro, S. J., Leibson, P. J., Loken, M. R., and Schreiber, H.** Changes in Susceptibility to Cytotoxic Antibody among Tumor Cells Surviving Exposure to Chemotherapeutic Agents, 2622
- Shapiro, W. R.** See Yung, Shapiro, and Shapiro, 992
- Sharp, T. R.** See Calabro-Jones, Byfield, Ward, and Sharp, 4413
- Shea, W.** See Wagner, Naylor, Kim, Shea, Ip, and Ip, 1266
- Shehi, L.** See Fortner, Takemoto, Shehi, and Hansen, 2371
- Shellabarger, C. J.** See Holtzman, Stone, and Shellabarger, 50
- Sheng, W.-L.** See Lindahl, Evces, and Sheng, 577
- Sherman, B. M., Wallace, R. B., and Bean, J. A.** Cyclic Ovarian Function and Breast Cancer, 3286\*\*
- Shewach, D. S., and Plunkett, W.** Correlation of Cytotoxicity with Total Intracellular Exposure to 9- $\beta$ -D-Arabinofuranosyladenine 5'-Triphosphate, 3637

- Shibuya, T., Chen, I., Howatson, A., and Mak, T. W. Morphological, Immunological, and Biochemical Analyses of Chicken Spleen Cells Transformed *In Vitro* by Reticuloendotheliosis Virus Strain T. 2722
- Shih, T.-W. See McCarthy, Struck, Shih, Suling, Hill, and Enke, 3475
- Shiloh, Y., Tabor, E., and Becker, Y. Cellular Hypersensitivity to Neocarzinostatin in Ataxia-Telangiectasia Skin Fibroblasts, 2247
- Shimada, A. See Mower, Ichinotsubo, Wang, Mandel, Stemmermann, Nomura, Heilbrun, Kamiyama, and Shimada, 1164
- Shimamoto, F. See Tahara, Shimamoto, Taniguchi, Ito, Kosako, and Sumiyoshi, 1781
- Shimizu, E. See Sone, Moriguchi, Shimizu, Ogushi, and Tsubura, 2227
- Shinomiya, K. See Hosoi, Nakamura, Higashi, Yamamuro, Toyama, Shinomiya, and Mikawa, 654
- Shinozuka, H. See Abanobi, Lombardi, and Shinozuka, 412
- Shinpo, K. See Fujita, Shinpo, Yamada, Sato, Nimi, Shamoto, Nagatsu, Takeuchi, and Umezawa, 309
- Shionoya, H., Arai, H., Koyanagi, N., Ohtake, S., Kobayashi, H., Kodama, T., Kato, H., Tung, T.-C., and Lin, J.-Y. Induction of Antitumor Immunity by Tumor Cells Treated with Abrin, 2872
- Shirai, T. See Takano, Shirai, Ogiso, Tsuda, Baba, and Ito, 4236
- Shiraishi, N., Yoshima, H., Maeda, S., Mizoguchi, A., Matsumoto, A., Sugiyama, T., and Kobata, A. Cell Surface Glycoprotein and Asparagine-linked Sugar Chain Patterns of Rat Erythroleukemic Cell Lines, 2884
- Shiraki, H. See Matsuda, Shiraki, and Nakagawa, 112
- Shiu, R. P. C. See Imai, Leung, Friesen, and Shiu, 4394
- Shively, J. E., Spayth, V., Chang, F.-F., Metter, G. E., Klein, L., Present, C. A., and Todd, C. W. Serum Levels of Carcinoembryonic Antigen and a Tumor-extracted Carcinoembryonic Antigen-related Antigen in Cancer Patients, 2506
- Shklar, G. See Solt and Shklar, 285
- Shoffner, P. C. See Brown, Shoffner, Tondreau, Matthews, Terry, and Rosenberg, 2216
- Short, J. See Coetzee, Short, Klein, and Ove, 155
- Shrivastav, S. See Kaelin, Shrivastav, Shand, and Jirtle, 3944
- Shuker, D. E. G. See Puju, Shuker, Bishop, Falchuk, Tannenbaum, and Thilly, 2601
- Shuster, J. See Brenner, Jothy, Shuster, and Fuks, 3187
- Sidebottom, E. See Armstrong, Quigley, and Sidebottom, 1826
- Sieg, S. M. See Starling, Sieg, Beckett, Schellhammer, Ladaga, and Wright, 3084
- Siemens, A. See Berns, Dahlman, Johnson, Burns, Sperling, Guitinan, Siemens, Walter, Wright, Hammer-Wilson, and Wile, 2325
- Sileri, P. K. Review of Studies on Estrogen Biosynthesis in the Human, 3269\*\*
- Silagi, S., and Calvelli, T. A. Relationship between Rejection of Several Syngeneic Tumors and Retrovirus Production by 5-Bromodeoxyuridine-grown Melanoma Cells: Lack of Protection in Natural Killer-deficient Beige Mice, 2562
- Silveira, D. M. See Chadwick, Silveira, MacGregor, Brantman, Liss, and Yesair, 627
- Silver, B. A. See Fisher, Silver, Vanhaelen, Jaffe, and Cossman, 2465
- Silverman, D. T. See Hartge, Hoover, Altman, Austin, Cantor, Child, Key, Mason, Marrett, Myers, Narayana, Silverman, Sullivan, Swanson, Thomas, and West, 4784
- Silverman, L. M. See Gendler, Dermer, Silverman, and Tokes, 4567
- Simon, I. See Guffy, Rosenberger, Simon, and Burns, 3625
- Simon, I., Burns, C. P., and Spector, A. A. Electron Spin Resonance Studies on Intact Cells and Isolated Lipid Droplets from Fatty Acid-modified L1210 Murine Leukemia, 2715
- Sina, J. F., Bradley, M. O., and O'Brien, T. G. Neoplastic Transformation of Syrian Hamster Epidermal Cells *In Vitro*, 4116
- Singer, J. M. See DiGiovanni, Miller, Singer, Viaje, and Slaga, 2579
- Singer, R. M. See Takahara, Herz, Singer, Hirano, and Koss, 563
- Sinha, D. K. See Dao, Sinha, Nemoto, and Patel, 359
- Sirotnak, F. M., Moccio, D. M., Goutas, L. J., Kelleher, L. E., and Montgomery, J. A. Biochemical Correlates of Responsiveness and Collateral Sensitivity of Some Methotrexate-resistant Murine Tumors to the Lipophilic Antifolate, Metoprine, 924
- Sisskin, E. E. See Barrett, Brown, and Sisskin, 3098
- Skehan, P., and Friedman, S. J. Deceleratory Growth by a Rat Glioma Tumor Line in Culture, 1636
- Sködefors, H. See Pousette, Carlström, Sködefors, Wilking, and Theve, 633
- Sladek, N. E. See Low, Borch, and Sladek, 830
- Slaga, T. J. See Buhler, Unlu, Thakker, Slaga, Newman, Levin, Conney, and Jerina, 4779; DiGiovanni, Miller, Singer, Viaje, and Slaga, 2579; Nelson and Slaga, 4176; Nelson, Stephenson, and Slaga, 4164
- Slagel, D. E., Feola, J., Houchens, D. P., and Ovejera, A. A. Combined Modality Treatment Using Radiation and/or Chemotherapy in an Athymic Nude Mouse-Human Medulloblastoma and Glioblastoma Xenograft Model, 812
- Slagle, N. S. See Duttagupta, Romney, Palan, and Slagle, 2938
- Slavik, M. See Vold, Keith, and Slavik, 5265
- Sletten, K. See Husby, Marhaug, and Sletten, 1600
- Sloane, B. F., Honn, K. V., Sadler, J. G., Turner, W. A., Kimpson, J. J., and Taylor, J. D. Cathepsin B Activity in B16 Melanoma Cells: A Possible Marker for Metastatic Potential, 980
- Slocum, H. See Early, Preisler, Slocum, and Rustum, 1587
- Slomiany, D. J. See Kouri, McKinney, Slomiany, Snodgrass, Wray, and McLemore, 5030
- Slowiaczek, P. See Dudman, Slowiaczek, and Tattersall, 502; Taylor, Slowiaczek, Francis, and Tattersall, 5159
- Sluys, M. See Michalides, Wagenaar, and Sluys, 1154
- Smart, E. See Wells, Worgul, Samojlik, Boucher, Lipton, Harvey, White, Smart, Cox, and Santen, 3454\*\*
- Smellie, S. G. See Parsons, Smellie, Morrison, and Hayward, 1454
- Smets, L. A. See van Beek, Tulp, Egbers-Bogaards, Roozendaal, and Smets, 5222
- Smith, B. L., and Sager, R. Multistep Origin of Tumor-forming Ability in Chinese Hamster Embryo Fibroblast Cells, 389
- Smith, I. E. See Coombes, Chilvers, Dowsett, Gazet, Ford, Bettelheim, Gordon, Smith, Zava, Powles, and Investigators of the Collaborative Breast Cancer Project, 3415\*\*; Harris, Powles, and Smith, 3405\*\*
- Smith, I. E., Harris, A. L., Morgan, M., Gazet, J.-C., and McKinna, J. A. Tamoxifen versus Aminoglutethimide versus Combined Tamoxifen and Aminoglutethimide in the Treatment of Advanced Breast Carcinoma, 3430\*\*
- Smith, J. M. See Anzano, Roberts, Meyers, Komoriya, Lamb, Smith, and Sporn, 4776
- Smith, P. A. See Moyer, Smith, Levy, and Hand-schumacher, 4052
- Smith, R. E. See Price and Smith, 3617
- Smith, R. G. See Reynolds, Reynolds, Frenkel, and Smith, 1331
- Smith, R. S. See Burchenal, Chou, Lokys, Smith, Watanabe, Su, and Fox, 2598
- Smith, V. R. See Chee, Yonemoto, Leong, Richards, Smith, Klotz, Goto, Gascon, and Drush-ella, 3142
- Smuckler, E. A. See Clawson and Smuckler, 3228
- Snider, C. E. See Brueggemeier, Snider, and Counsell, 3334\*\*
- Snodgrass, D. R. See Kouri, McKinney, Slomiany, Snodgrass, Wray, and McLemore, 5030
- Soares, N. See Bromer, Mitchell, and Soares, 1261
- Sobrero, A. See Pannacciulli, Massa, Bogliolo, Ghio, and Sobrero, 530
- Sogani, P. C. See Klein, Melamed, Whitmore, Herr, Sogani, and Darzynkiewicz, 1094
- Solomon, A. See Griffin, Owen, Atchley, Novelli, and Solomon, 4505
- Soloway, M. S. See Niell, Wood, Mickey, and Soloway, 807
- Solt, D. B., and Shklar, G. Rapid Induction of  $\gamma$ -Glutamyl Transpeptidase-rich Intraepithelial Clones in 7,12-Dimethylbenz(a)anthracene-treated Hamster Buccal Pouch, 285
- Som, P. See Fairchild, Greenberg, Watts, Packer, Atkins, Som, Hannon, Brill, Fand, and McNally, 556; Fairchild, Packer, Greenberg, Som, Brill, Fand, and McNally, 5126
- Somers, K. D., and Murphy, M. M. Multinucleation in Response to Cytochalasin B: A Common Feature in Several Human Tumor Cell Lines, 2575
- Sone, S., Moriguchi, S., Shimizu, E., Ogushi, F., and Tsubura, E. *In Vitro* Generation of Tumoricidal Properties in Human Alveolar Macrophages following Interaction with Endotoxin, 2227
- Song, C. W. See Rhee, Song, and Levitt, 4485
- Sonnenfeld, K. H. See Spinelli, Sonnenfeld, and Ishii, 5067
- Soong, S.-J. See Barger, Acton, Soong, Roseman, and Balch, 4276
- Sorell, M. See Tan, Hancock, Steiner, Steiner, Sorell, Chan, Mondora, and Miller, 1579
- Sorgente, N. See Bowersox and Sorgente, 2547
- Sorof, S. See Blackburn, Schnabel, Danley, Hoque-Angeletti, and Sorof, 4664; Schaefer, Custer, and Sorof, 3682
- Sorrentino, V. See Palitti, Matarese, Diana, Sorrentino, and Rossi, 4753
- Southwest Oncology Group. See Hoogstraten, Fletcher, Gad-el-Mawla, Maloney, Altman, Vaughn, and Foulkes, 4788
- Spadari, S. See Pedrali-Noy, Belvedere, Crepaldi, Focher, and Spadari, 3810
- Spangler, E. F. See Yuspa, Spangler, Donahoe, Geusz, Ferguson, Wenk, and Hennings, 437
- Sparnins, V. L. See Lam, Sparnins, and Wattenberg, 1193
- Sparnins, V. L., Chuan, J., and Wattenberg, L. W. Enhancement of Glutathione S-Transferase Activity of the Esophagus by Phenols, Lactones, and Benzyl Isothiocyanate, 1205
- Spayth, V. See Shively, Spayth, Chang, Metter, Klein, Present, and Todd, 2506
- Spears, C. P., Shahinian, A. H., Moran, R. G., Heidelberger, C., and Corbett, T. H. *In Vivo* Kinetics of Thymidylate Synthetase Inhibition in 5-Fluorouracil-sensitive and -resistant Murine Colon Adenocarcinomas, 450
- Spector, A. A. See Simon, Burns, and Spector, 2715; Yoo, Kuo, Spector, Denning, Floyd, Whiteaker, Kim, Kim, Abbas, and Budd, 3596
- Speers, W. C. Conversion of Malignant Murine Embryonal Carcinomas to Benign Teratomas by Chemical Induction of Differentiation *In Vivo*, 1843
- Sperling, D. See Berns, Dahlman, Johnson, Burns, Sperling, Guitinan, Siemens, Walter, Wright, Hammer-Wilson, and Wile, 2325
- Speyer, J. L. See Ozols, Young, Speyer, Sugarbaker, Greene, Jenkins, and Myers, 4265; Spiegel, Blum, Levin, Pinto, Wernz, Speyer, Hoffman, and Muggia, 354
- Spiegel, R. J., Blum, R. H., Levin, M., Pinto, C. A., Wernz, J. C., Speyer, J. L., Hoffman, K. S., and Muggia, F. M. Phase I Clinical Trial of 9,10-Anthracene Dicarboxaldehyde (Bisan-trene) Administered in a Five-Day Schedule,

- 354  
**Spiegelman, S.** See Martin, Stolfi, Sawyer, Spiegelman, and Young, 3964  
**Spigel, L.** See Horn, Beal, Walach, Lubich, Spigel, and Marton, 3248  
**Spinelli, W., Sonnenfeld, K. H., and Ishii, D. N.** Effects of Phorbol Ester Tumor Promoters and Nerve Growth Factor on Neurite Outgrowth in Cultured Human Neuroblastoma Cells, 5067  
**Sporn, M. B.** See Anzano, Roberts, Meyers, Komoriya, Lamb, Smith, and Sporn, 4776  
**Spremluli, E. N.** See Dexter, Spremluli, Matook, Diamond, and Calabresi, 5018; Wiemann, Cummings, Kaplan, Spremluli, Doolittle, and Calabresi, 3896  
**Staal, G. E. J.** See Beemer, Vlug, Rijkse, Hamburg, and Staal, 4228  
**Stablein, D. M.** See Carter, Wampler, Stablein, and Campbell, 2963  
**Staiano-Coico, L.** See Darzynkiewicz, Traganos, Staiano-Coico, Kapuscinski, and Melamed, 799  
**Stanberry, L. R., Das Gupta, T. K., and Beattie, C. W.** Biological Behavior of MM1 Hamster Melanoma, 2238  
**Stanberry, L. R., Lindsey, W. F., and Beattie, C. W.** Effect of Adrenal Manipulation on Glucocorticoid Receptors in MM1 Hamster Melanoma, 2242  
**Stanley, R. A.** See Robertson, Lee, Lindop, Stanley, Thomsen, and Tasman-Jones, 5165  
**Starling, J. J., Sieg, S. M., Beckett, M. L., Schellhammer, P. F., Ladaga, L. E., and Wright, G. L., Jr.** Monoclonal Antibodies to Human Prostate and Bladder Tumor-associated Antigens, 3084  
**Stayman, J. W., III** See Sauer, Stayman, and Dauchy, 4090  
**Stebbing, N.** See Lee, Kelley, Chiu, and Stebbing, 1312  
**Steel, G. G.** See Selby and Steel, 4758  
**Stehlin, J. S., Jr.** See Morgan, Rossen, McCormick, Stehlin, and Giovannella, 881  
**Stein, G. S.** See Wojtkowiak, Duhl, Briggs, Hnilica, Stein, and Stein, 4546  
**Stein, J. L.** See Wojtkowiak, Duhl, Briggs, Hnilica, Stein, and Stein, 4546  
**Steinberg, M. L.** See Friedman and Steinberg, 5096; Mufson, Steinberg, and Defendi, 4600  
**Steinberg, S. E., Campbell, C. L., Bleyer, W. A., and Hillman, R. S.** Enterohepatic Circulation of Methotrexate in Rats *In Vivo*, 1279  
**Steiner, S. M.** See Morton, Klinger, and Steiner, 3022  
**Steinherz, L. J.** See Tan, Hancock, Steinherz, Steinherz, Sorell, Chan, Mondora, and Miller, 1579  
**Steinherz, P. G.** See Tan, Hancock, Steinherz, Steinherz, Sorell, Chan, Mondora, and Miller, 1579  
**Stemmermann, G.** See Mower, Ichinotsubo, Wang, Mandel, Stemmermann, Nomura, Heilbrunn, Kamiyama, and Shimada, 1164  
**Stephens, L. C.** See Stragand, Drewinko, Henderson, Grossie, Stephens, Barlogie, and Trujillo, 3111  
**Stephenson, K. B.** See Nelson, Stephenson, and Slaga, 4164  
**Steplewski, Z.** See Atkinson, Ernst, Herlyn, Steplewski, Sears, and Koprowski, 4820; Mazauric, Mitchell, Letchworth, Koprowski, and Steplewski, 150  
**Sterling, K. M., Jr., DiPetrillo, T., Cutroneo, K. R., and Prestayko, A.** Inhibition of Collagen Accumulation by Glucocorticoids in Rat Lung after Intratracheal Bleomycin Instillation, 405  
**Sterling, K. M., Jr., DiPetrillo, T. A., Kotch, J. P., and Cutroneo, K. R.** Bleomycin-induced Increase of Collagen Turnover in IMR-90 Fibroblasts: An *In Vitro* Model of Connective Tissue Restructuring during Lung Fibrosis, 3502  
**Sterns, E. E.** See Bird, Masters, Sterns, and Clark, 4797  
**Stevens, J. S.** See Richmond, Lawson, Nixon, Stevens, and Chawla, 3175  
**Stewart, D. J., Leavens, M., Maor, M., Feun, L., Luna, M., Bonura, J., Caprioli, R., Loo, T. L., and Benjamin, R. S.** Human Central Nervous System Distribution of *cis*-Diamminedichloroplatinum and Use as a Radiosensitizer in Malignant Brain Tumors, 2474  
**Stewart, D. J., Wallace, S., Feun, L., Leavens, M., Young, S. E., Handel, S., Mavligit, G., and Benjamin, R. S.** A Phase I Study of Intracarotid Artery Infusion of *cis*-Diamminedichloroplatinum(II) in Patients with Recurrent Malignant Intracerebral Tumors, 2059  
**Stewart, M. L.** See Farrelly, Stewart, Saavedra, and Lijinsky, 2105  
**Stigbrand, T.** See Lange, Millán, Stigbrand, Vessella, Ruoslahti, and Fishman, 3244; Millán, Stigbrand, Ruoslahti, and Fishman, 2444  
**Stinson, R. A.** See Gainer and Stinson, 3507  
**Stitz, L.** See Keller, Aguet, Tovey, and Stitz, 1468  
**Stock, C. C.** See Katopodis, Hirshaut, Geller, and Stock, 5270; Teller, Stock, Bowie, Chou, and Budinger, 4408  
**Stolfi, R. L.** See Martin, Stolfi, Sawyer, Spiegelman, and Young, 3964  
**Stoll, C., Oberling, F., and Roth, M.-P.** Sister Chromatid Exchange and Growth Kinetics in Chronic Myeloid Leukemia, 3240  
**Stolowich, N. J.** See Porter, Bergeron, and Stolowich, 4072  
**Stols, L.** See Iannaccone, Tsao, and Stols, 864  
**Stone, J. P.** See Holtzman, Stone, and Shellabarger, 50  
**Stoner, G. D.** See Autrup and Stoner, 1307  
**Stover, B. J.** See Pollack, Irvin, Block, Lipton, Stover, and Claflin, 2184  
**Stragand, J. J., Drewinko, B., Henderson, S. D., Grossie, B., Stephens, L. C., Barlogie, B., and Trujillo, J. M.** Growth Characteristics of Human Colonic Adenocarcinomas Propagated in the Rowett Athymic Rat, 3111  
**Strand, M.** See Scheinberg and Strand, 44  
**Strauli, P.** See Easty, Haemmerli, Easty, and Strauli, 4248  
**Strobel, H. W.** See Fang and Strobel, 3676  
**Strom, S. C.** See Michalopoulos, Cianciulli, Novotny, Kligerman, Strom, and Jirtle, 4673  
**Strom, S. C., and Michalopoulos, G.** Mutagenesis and DNA Binding of Benzo(a)pyrene in Cocultures of Rat Hepatocytes and Human Fibroblasts, 4519  
**Struck, R. F.** See Berrigan, Marinello, Pavelic, Williams, Struck, and Gurtoo, 3688; McCarthy, Struck, Shih, Suling, Hill, and Enke, 3475  
**Su, T.-L.** See Burchenal, Chou, Lokys, Smith, Watanabe, Su, and Fox, 2598; Chou, Burchenal, Schmid, Braun, Su, Watanabe, Fox, and Philips, 3957  
**Subbarao, V.** See Scarpelli, Kokkinakis, Rao, Subbarao, Luetteke, and Hollenberg, 5089  
**Subbiah, A.** See Neidle, Subbiah, Kuroda, and Cooper, 3766  
**Suda, K.** See Kano, Sakamoto, Kasahara, Kusumoto, Hida, Suda, Ozawa, Miura, and Takaku, 3090  
**Sugarbaker, P. H.** See Ozols, Young, Speyer, Sugarbaker, Greene, Jenkins, and Myers, 4265  
**Sugimoto, T.** See Yarkoni, Ashley, Zbar, Sugimoto, and Rapp, 2544  
**Sugimura, T.** See Esumi, Takahashi, Seki, Sato, Nagase, and Sugimura, 306; Fisher, Miranda, Mufson, Weinstein, Fujiki, Sugimura, and Weinstein, 2829  
**Sugiyama, T.** See Shiraishi, Yoshima, Maeda, Mizoguchi, Matsumoto, Sugiyama, and Kobata, 2884  
**Suling, W. J.** See McCarthy, Struck, Shih, Suling, Hill, and Enke, 3475  
**Sullivan, J. W.** See Hartge, Hoover, Altman, Austin, Cantor, Child, Key, Mason, Marrett, Myers, Narayana, Silverman, Sullivan, Swanson, Thomas, and West, 4784  
**Sumiyoshi, H.** See Tahara, Shimamoto, Taniyama, Ito, Kosako, and Sumiyoshi, 1781  
**Summerhayes, I. C., and Chen, L. B.** Localization of a M, 52,000 Keratin in Basal Epithelial Cells of the Mouse Bladder and Expression throughout Neoplastic Progression, 4098  
**Sun, A. M.** See See, Sun, McComb, Gerrie, and Kovacs, 2336  
**Sunkara, P. S.** See Verma and Sunkara, 3046  
**Supowit, S. C., and Rosen, J. M.** Hormonal Induction of Casein Gene Expression Limited to a Small Subpopulation of 7,12-Dimethylbenz(a)anthracene-induced Mammary Tumor Cells, 1355  
**Sutherland, R. M.** See Bauer, Keng, and Sutherland, 72; Landry, Lord, and Sutherland, 93; Mueller-Klieser and Sutherland, 237  
**Sutton, J. E., Roos, I. A. G., and Hilcoot, B. L.** Combined Actions of 5-Fluorouracil and 1-(2-Chloroethyl)-3-(4-methylcyclohexyl)-1-nitrosourea on Human Colonic Carcinoma Cells *In Vitro*, 5172  
**Suva, L. J.** See Frampton, Suva, Eisman, Findlay, Moore, Moseley, and Martin, 1116  
**Suzuki, M.** See Abe, Saito, Hori, Suzuki, and Sato, 2846  
**Suzuki, T.** See Sakakibara, Suzuki, Motoyama, Watanabe, and Nagai, 2019  
**Suzuki, Y.** See Onoda, Morikawa, Harada, Suzuki, Inoue, and Nishigami, 2867  
**Svaninger, G.** See Lundholm, Bennegård, Edén, Svaninger, Emery, and Rennie, 4807  
**Svoboda, D. J.** See Kimler, Henderson, Mansfield, Svoboda, and Cheng, 2656  
**Swaminathan, S., Lower, G. M., Jr., and Bryan, G. T.** Nitroreductase-mediated Metabolic Activation of 2-Amino-4-(5-nitro-2-furyl)thiazole and Binding to Nucleic Acids and Proteins, 4479  
**Swanson, G. M.** See Hartge, Hoover, Altman, Austin, Cantor, Child, Key, Mason, Marrett, Myers, Narayana, Silverman, Sullivan, Swanson, Thomas, and West, 4784  
**Swartzendruber, D. C.** See Borman, Swartzendruber, and Littlefield, 5074  
**Swartzendruber, D. E.** See Brock, Swartzendruber, and Grdina, 4999  
**Sweeney, F. L., Pot-Deprun, J., Poupon, M.-F., and Chouroulinkov, I.** Heterogeneity of the Growth and Metastatic Behavior of Cloned Cell Lines Derived from a Primary Rhabdomyosarcoma, 3776  
**Swenberg, J. A.** See Bedell, Lewis, Billings, and Swenberg, 3079; Lewis and Swenberg, 89; Lindamood, Bedell, Billings, and Swenberg, 4153  
**Swenson, D. H.** See Li, Swenson, Schpok, Kuentzel, Dayton, and Krueger, 999  
**Swenson, D. H., Li, L. H., Hurley, L. H., Rokem, J. S., Petzold, G. L., Dayton, B. D., Wallace, T. L., Lin, A. H., and Krueger, W. C.** Mechanism of Interaction of CC-1065 (NSC 298223) with DNA, 2821  
**Swift, H.** See Rubin, Getz, and Swift, 1395  
**Sylvester, P. W., Aylsworth, C. F., Van Vugt, D. A., and Meites, J.** Influence of Underfeeding During the "Critical Period" or Thereafter on Carcinogen-induced Mammary Tumors in Rats, 4943  
**Syne, J. S., Markaverich, B. M., Clark, J. H., and Panko, W. B.** Estrogen Binding Sites in the Nucleus of Normal and Malignant Human Tissue: Characteristics of the Multiple Nuclear Binding Sites, 4449; Estrogen Binding Sites in the Nucleus of Normal and Malignant Human Tissue: Optimization of an Exchange Assay for the Measurement of Specific Binding, 4443

## T

- Tabor, E.** See Shiloh, Tabor, and Becker, 2247  
**Tada, K.** See Tsuchiya, Kobayashi, Goto, Okumura, Nakae, Konno, and Tada, 1530  
**Tada, M.** See Wood, Chang, Levin, Yagi, Tada, Vyas, Jerina, and Conney, 2972



- Tagliaferro, A. R.** See Thompson, Meeker, Tagliaferro, and Becci, 903
- Tahara, E., Shimamoto, F., Taniyama, K., Ito, H., Kosako, Y., and Sumiyoshi, H.** Enhanced Effect of Gastrin on Rat Stomach Carcinogenesis Induced by *N*-Methyl-*N*-nitro-*N*-nitrosoguanidine, 1781
- Tajana, G.** See Fusco, Pinto, Tramontano, Tajana, Vecchio, and Tsuchida, 618
- Takada, H., Hirooka, T., Hiramatsu, Y., and Yamamoto, M.** Effect of  $\beta$ -Glucuronidase Inhibitor on Azoxymethane-Induced Colonic Carcinogenesis in Rats, 331
- Takada, Y., Noguchi, T., Okabe, T., and Kajiyama, M.** Superoxide Dismutase in Various Tissues from Rabbits Bearing the Vx-2 Carcinoma in the Maxillary Sinus, 4233
- Takagi, M.** See Kikuchi, Takagi, Parmley, Ghanta, and Hiramoto, 1072
- Takahara, N., Herz, F., Singer, R. M., Hirano, A., and Koss, L. G.** Induction of Alkaline Phosphatase Activity in Cultured Human Intracranial Tumor Cells, 563
- Takahashi, I.** See Ohnoshi, Ohnuma, Takahashi, Scanlon, Kamen, and Holland, 1655
- Takahashi, T.** See Seto, Umamoto, Saito, Masuho, Hara, and Takahashi, 5209
- Takahashi, Y.** See Esumi, Takahashi, Seki, Sato, Nagase, and Sugimura, 306
- Takaki, R.** See Kuwano, Akiyama, Kaneko, Ikezaki, Takaki, and Kimura, 280
- Takaku, F.** See Kano, Sakamoto, Kasahara, Kusumoto, Hida, Suda, Ozawa, Miura, and Takaku, 3090
- Takano, S.** See Matsushima, Takano, Ertürk, and Bryan, 3587
- Takano, T., Shirai, T., Ogiso, T., Tsuda, H., Baba, S., and Ito, N.** Sequential Changes in Tumor Development Induced by 1,4-Dinitro-piperazine in the Nasal Cavity of F344 Rats, 4236
- Takasugi, M., Mickey, M. R., and Levine, P. H.** Natural and Antibody-dependent Cell-mediated Cytotoxicity to Cultured Target Cells Superinfected with Epstein-Barr Virus, 1208
- Takayama, S.** See Ishikawa, Kodama, Ide, and Takayama, 5216
- Takeda, E.** See Denton, Lui, Aoki, Sebolt, Takeda, Eble, Glover, and Weber, 1176
- Takeda, K., Minowada, J., and Bloch, A.** Kinetics of Appearance of Differentiation-associated Characteristics in ML-1, a Line of Human Myeloblastic Leukemia Cells, After Treatment with 12-*O*-Tetradecanoylphorbol-13-acetate, Dimethyl Sulfoxide, or 1- $\beta$ -D-Arabinofuranosylcytosine, 5152
- Takemoto, L. J.** See Fortner, Takemoto, Shehi, and Hansen, 2371
- Taketa, K.** See Nakabayashi, Taketa, Miyano, Yamane, and Sato, 3858
- Takeuchi, T.** See Fujita, Shinpo, Yamada, Sato, Niimi, Shamoto, Nagatsu, Takeuchi, and Umezawa, 309
- Talmade, J. E., Donovan, P. A., and Hart, I. R.** Inhibition of Cellular Division of a Murine Macrophage Tumor by Macrophage-activating Agents, 1850
- Tan, C.** See Kelsen, Scher, Alcock, Leyland-Jones, Donner, Williams, Greene, Burchenal, Tan, Phillips, and Young, 4831
- Tan, C. T. C., Hancock, C., Steinherz, P. G., Steinherz, L. J., Sorell, M., Chan, K. W., Mondora, A., and Miller, D. R.** Phase II Study of 4'-(9-Acridinylamino)methanesulfon-*m*-aniside (NSC 249992) in Children with Acute Leukemia and Lymphoma, 1579
- Tan, Q. H.** See Banner, Tan, and Zedeck, 2985; Notman, Tan, and Zedeck, 1774
- Tanaka, A., and Watanabe, M.** Distribution and Metabolism of 1-Propyl-1-nitrosourea in Rats, 3837
- Tanaka, K.** See Tanooka and Tanaka, 1856; Tanooka, Tanaka, and Arimoto, 4740
- Tanaka, M., and Yoshida, S.** Altered Sensitivity to 1- $\beta$ -D-Arabinofuranosylcytosine 5'-Triphosphate of DNA Polymerase  $\alpha$  from Leukemic Blasts of Acute Lymphoblastic Leukemia, 649
- Tanguay, R. M.** See Landry, Bernier, Chretien, Nicole, Tanguay, and Marceau, 2457
- Tanigaki, T.** See Yutsudo, Tanigaki, Tsumori, Watanabe, and Hakura, 2440
- Tanigawa, N., Kern, D. H., Hikasa, Y., and Morton, D. L.** Rapid Assay for Evaluating the Chemoresponsiveness of Human Tumors in Soft Agar Culture, 2159
- Taniguchi, H.** See Furukawa, Iwanaga, Koyama, and Taniguchi, 5181
- Taniyama, K.** See Tahara, Shimamoto, Taniyama, Ito, Kosako, and Sumiyoshi, 1781
- Tannenbaum, S. R.** See Puju, Shuker, Bishop, Falchuk, Tannenbaum, and Thilly, 2601
- Tannock, I.** Response of Aerobic and Hypoxic Cells in a Solid Tumor to Adriamycin and Cyclophosphamide and Interaction of the Drugs with Radiation, 4921. See also Kovnat, Armitage, and Tannock, 3696
- Tanooka, H., and Tanaka, K.** Evidence for Single-Cell Origin of 3-Methylcholanthrene-Induced Fibrosarcomas in Mice with Cellular Mosaicism, 1856
- Tanooka, H., Tanaka, K., and Arimoto, H.** Dose Response and Growth Rates of Subcutaneous Tumors Induced with 3-Methylcholanthrene in Mice and Timing of Tumor Origin, 4740
- Tapiero, H.** See Fourcade, Farhi, Bennoun, and Tapiero, 1950
- Tarella, C.** See Ferrero, Tarella, Gallo, Ruscetti, and Breitman, 4421
- Tarella, C., Ferrero, D., Callo, E., Pagliardi, G. L., and Ruscetti, F. W.** Induction of Differentiation of HL-60 Cells by Dimethyl Sulfoxide: Evidence for a Stochastic Model Not Linked to the Cell Division Cycle, 445
- Tashjian, A. H., Jr.** See Osborne and Tashjian, 4375
- Tasman-Jones, C.** See Robertson, Lee, Lindop, Stanley, Thomsen, and Tasman-Jones, 5165
- Tattelman, E.** See Benz, Tillis, Tattelman, and Cadman, 2081
- Tattersall, M. H. N.** See Dudman, Slowiaczek, and Tattersall, 502; Kaye, Woods, Fox, Coates, and Tattersall, 3445\*\*
- Taub, R. N.** See Yanovich and Taub, 3583
- Taylor, I. W., Slowiaczek, P., Francis, P. R., and Tattersall, M. H. N.** Purine Modulation of Methotrexate Cytotoxicity in Mammalian Cell Lines, 5159
- Taylor, J. D.** See Sloane, Honn, Sadler, Turner, Kimpson, and Taylor, 980
- Taylor-Papadimitriou, J.** See Chang, Keen, Lane, and Taylor-Papadimitriou, 2040
- Teller, M. N., Stock, C. C., Bowie, M., Chou, T. C., and Budinger, J. M.** Therapy of 7,12-Dimethylbenz(a)anthracene-Induced Rat Mammary Carcinomas with Combinations of 5-Fluorouracil and 2 $\alpha$ -Methylidihydrotestosterone Propionate, 4408
- Temple, C. G., Jr.** See Wheeler, Bowdon, Werline, Adamson, and Temple, 791
- Tennant, R. W., Otten, J. A., Myer, F. E., and Rascati, R. J.** Induction of Retrovirus Gene Expression in Mouse Cells by Some Chemical Mutagens, 3050
- Teramura, D. J.** See Hu, Mah, and Teramura, 2786
- Terasaki, P. I.** See Iwaki, Kasai, Terasaki, Bernoco, Park, Cicciarelli, Heintz, Saxton, Burk, and Morton, 4009
- Terauchi, M.** See Kuroki, Hosomi, Munakata, Onizuka, Terauchi, and Nemoto, 1859
- Terranova, V. P., Liotta, L. A., Russo, R. G., and Martin, G. R.** Role of Laminin in the Attachment and Metastasis of Murine Tumor Cells, 2265
- Terry, W. D.** See Brown, Shoffner, Tondreau, Matthews, Terry, and Rosenberg, 2216
- Terzaghi, M., Nettesheim, P., and Riester, L.** Effect of Carcinogen Dose on the Dynamics of Neoplastic Development in Rat Tracheal Epithelium, 4511
- Testa, U., Henri, A., Bettaieb, A., Titeux, M., Vainchenker, W., Tonthat, H., Docklear, M. C., and Rochant, H.** Regulation of *i* and *l* Antigens Expression in K562 Cell Line, 4694
- Tew, K. D.** See Ahlgren, Green, Tew, and Schein, 2605
- Thakker, D. R.** See Buhler, Unlu, Thakker, Slaga, Newman, Levin, Conney, and Jerina, 4779
- Thames, H. D., Jr.** See Milas, Hunter, Reid, and Thames, 1888
- Thanassi, J. W.** See Meisler, Nutter, and Thanassi, 3538
- Thein, R., and Lotan, R.** Sensitivity of Cultured Human Osteosarcoma and Chondrosarcoma Cells to Retinoic Acid, 4771
- Theiss, J. C.** See Nguyen, Theiss, and Matney, 4792
- Theologides, A.** See Abdel-Monem, Merdink, and Theologides, 2097
- Theve, N. O.** See Poussette, Carlström, Sködefors, Wilking, and Theve, 633
- Thibodeau, L. A.** See Shami, Thibodeau, Kennedy, and Little, 1405
- Thiel, H. J.** See Fischinger, Thiel, Lieberman, Kaplan, Dunlop, and Robey, 4650
- Thilly, W. G.** See Puju, Shuker, Bishop, Falchuk, Tannenbaum, and Thilly, 2601
- Thomas, D. B.** See Hartge, Hoover, Altman, Austin, Cantor, Child, Key, Mason, Marrett, Myers, Narayana, Silverman, Sullivan, Swanson, Thomas, and West, 4784
- Thomas, M. R.** See Glode, Robinson, Hartmann, Klein, Thomas, and Morton, 4270
- Thomassen, D. G., and DeMars, R.** Clonal Analysis of the Stepwise Appearance of Anchorage Independence and Tumorigenicity in CAK, a Permanent Line of Mouse Cells, 4054
- Thompson, C. A.** See McCormick, Mehta, Thompson, Dinger, Caldwell, and Moon, 508
- Thompson, E. B.** See Harmon, Schmidt, and Thompson, 2110
- Thompson, H. J., Meeker, L. D., Becci, P. J., and Kokoska, S.** Effect of Short-Term Feeding of Sodium Selenite on 7,12-Dimethylbenz(a)anthracene-Induced Mammary Carcinogenesis in the Rat, 4954
- Thompson, H. J., Meeker, L. D., Tagliaferro, A. R., and Becci, P. J.** Effect of Retinyl Acetate on the Occurrence of Ovarian Hormone-responsive and -nonresponsive Mammary Cancers in the Rat, 903
- Thompson, L. H.** See Meyn, Jenkins, and Thompson, 3106
- Thomsen, L.** See Robertson, Lee, Lindop, Stanley, Thomsen, and Tasman-Jones, 5165
- Thomson, S. P., and Meyskens, F. L., Jr.** Method for Measurement of Self-Renewal Capacity of Clonogenic Cells from Biopsies of Metastatic Human Malignant Melanoma, 4606
- Thurman, R. G.** See Reinke, McManus, Kauffman, and Thurman, 1681
- Tidd, D. M., Gibson, I., and Dean, P. D. G.** Partial Circumvention of Resistance to 6-Mercaptopurine by Acylated  $P^1, P^2$ -Bis(6-mercaptopurine-9- $\beta$ -D-ribofuranoside-5') Pyrophosphate Derivatives, 3769
- Tietze, F.** See Kinsella, Mitchell, McPherson, Russo, and Tietze, 3950
- Tillis, T.** See Benz, Tillis, Tattelman, and Cadman, 2081
- Tilsen-Mallett, N.** See Santen, Santner, Tilsen-Mallett, Rosen, Samojlik, and Veldhuis, 3353\*\*
- Ting, A.** See Mirabelli, Ting, Huang, Mong, and Crooke, 2779
- Ting, H. L.** See Braunschweiger, Ting, and Schiffer, 1686
- Tinsley, R. W.** See Comis, Issell, Pittman, Ginsberg, Rudolph, Aust, DiFino, Tinsley, Polesz, and Crooke, 2944
- Titeux, M.** See Testa, Henri, Bettaieb, Titeux, Vainchenker, Tonthat, Docklear, and Rochant,



4694

- Tjälve, H. See Löfberg, Brittebo, and Tjälve, 2877
- Tobey, R. A., Enger, M. D., Griffith, J. K., and Hildebrand, C. E. Zinc-induced Resistance to Alkylating Agent Toxicity, 2980
- Tochigi, B. See Osawa, Tochigi, Higashiyama, Yarbrough, Nakamura, and Yamamoto, 3299\*\*
- Todaro, G. J. See Twardzik, Ranchalis, and Todaro, 590
- Todd, C. W. See Shively, Spayth, Chang, Metter, Klein, Present, and Todd, 2506
- Todoroki, T., Koike, S., Tsunemoto, H., and Watanabe, I. Enhanced Radiation Lethality in Partially Synchronized Solid Mouse Tumors, 5231
- Tökes, Z. A. See Gendler, Dermer, Silverman, and Tökes, 4567
- Tolen, S. See Valeriote and Tolen, 4330
- Tondreau, S. P. See Brown, Shoffner, Tondreau, Matthews, Terry, and Rosenberg, 2216
- Tong, A. W., Vandenbark, A. A., Kraybill, W., Vetto, R. M., and Burger, D. R. Flow Cytometric Detection of Tumor-specific Rosette-forming Cells in Patients with Squamous Cell Carcinoma of the Head and Neck, 2949
- Tong, W. P., Kirk, M. C., and Ludlum, D. B. Formation of the Cross-Link 1-[N<sup>3</sup>-Deoxycytidyl]-2-[N<sup>1</sup>-deoxyguanosyl]ethane in DNA Treated with N,N'-Bis(2-chloroethyl)-N-nitrosourea, 3102
- Tong, W. P., Kohn, K. W., and Ludlum, D. B. Modifications of DNA by Different Haloethylnitrosoureas, 4460
- Tonthat, H. See Testa, Henri, Bettaieb, Titeux, Vainchenker, Tonthat, Docklear, and Rochant, 4694
- Toolan, H. W., Rhode, S. L., III, and Gierthy, J. F. Inhibition of 7,12-Dimethylbenz(a)anthracene-induced Tumors in Syrian Hamsters by Prior Infection with H-1 Parvovirus, 2552
- Tormey, D. C. See Earhart, Tutsch, Koeller, Rodriguez, Robins, Vogel, Davis, and Tormey, 5255
- Tovey, M. See Keller, Aguet, Tovey, and Stitz, 1468
- Townsend, C. M. See Barranco, Townsend, Costanzi, May, Baltz, O'Quinn, Leipzig, Hokanson, Guseman, and Boerwinkle, 2899
- Townsend, L. B. See Bloomer, Wotring, and Townsend, 100
- Toyama, S. See Hosoi, Nakamura, Higashi, Yamamuro, Toyama, Shimomiya, and Mikawa, 654
- Traganos, F. See Darzynkiewicz, Traganos, Staiano-Coico, Kapuscinski, and Melamed, 799
- Tramontano, D. See Fusco, Pinto, Tramontano, Tajana, Vecchio, and Tsuchida, 618
- Tribukait, B. See Andersson, Beran, Peterson, and Tribukait, 178
- Troner, M. B. Aminoglutethimide in the Treatment of Metastatic Breast Cancer, 3402\*\*
- True, B. See Poirier, True, and Laishes, 1317
- Trujillo, J. M. See Stragand, Drewinko, Henderson, Grossie, Stephens, Barlogie, and Trujillo, 3111
- Trump, B. F. See Autrup, Grafstrom, Brugh, Lechner, Haugen, Trump, and Harris, 934; Purnell, Hillman, Heatfield, and Trump, 2317
- Trush, M. A. See Minnaugh, Trush, Ginsburg, and Gram, 3574
- Tsai-Morris, C-H. See Brodie, Garrett, Hendrickson, and Tsai-Morris, 3360\*\*
- Tsao, D. See Morita, Tsao, and Kim, 4540
- Tsao, D., Morita, A., Bella, A., Jr., Luu, P., and Kim, Y. S. Differential Effects of Sodium Butyrate, Dimethyl Sulfoxide, and Retinoic Acid on Membrane-associated Antigen, Enzymes, and Glycoproteins of Human Rectal Adenocarcinoma Cells, 1052
- Tsao, T. Y. See Iannaccone, Tsao, and Stols, 864
- Tseng, M. T. See Brightwell and Tseng, 4562
- Ts'o, P. O. P. See Nakano, Bruce, Ueo, and Ts'o, 3132
- Tsubura, T. See Sone, Moriguchi, Shimizu, Ogushi, and Tsubura, 2227
- Tsuchida, N. See Fusco, Pinto, Tramontano, Tajana, Vecchio, and Tsuchida, 618
- Tsuchiya, S., Kobayashi, Y., Goto, Y., Okumura, H., Nakae, S., Konno, T., and Tada, K. Induction of Maturation in Cultured Human Monocytic Leukemia Cells by a Phorbol Diester, 1530
- Tsuda, H. See Cameron, Imaida, Tsuda, and Ito, 2426; Takano, Shirai, Ogiso, Tsuda, Baba, and Ito, 4236
- Tsukada, Y. See Richards, Tsukada, and Potter, 1374, 5133
- Tsukagoshi, S. See Fukui, Inaba, Tsukagoshi, and Sakurai, 1098; Inaba, Fukui, Yoshida, Tsukagoshi, and Sakurai, 1103; Tsuruo, Hori, Iida, Tsukagoshi, and Sakurai, 2250; Tsuruo, Iida, Tsukagoshi, and Sakurai, 1462, 4730
- Tsumori, T. See Yutsudo, Tanigaki, Tsumori, Watanabe, and Hakura, 2440
- Tsunemoto, H. See Todoroki, Koike, Tsunemoto, and Watanabe, 5231
- Tsuruo, T., Hori, K., Iida, H., Tsukagoshi, S., and Sakurai, Y. Enzyme Catalyzed of the Deacylation of N<sup>4</sup>-Acyl Derivatives of 1- $\beta$ -D-Arabinofuranosylcytosine in the Mouse Liver Microsome, 2250
- Tsuruo, T., Iida, H., Tsukagoshi, S., and Sakurai, Y. Increased Accumulation of Vincristine and Adriamycin in Drug-resistant P388 Tumor Cells following Incubation with Calcium Antagonists and Calmodulin Inhibitors, 4730; 4'-O-Tetrahydropyranlyadriamycin as a Potential New Antitumor Agent, 1462
- Tuck, F. L. See Metzgar, Gaillard, Levine, Tuck, Bossen, and Borowitz, 601
- Tulley-Freiler, L. See LaVoie, Bedenko, Tulley-Freiler, and Hoffmann, 4045
- Tulp, A. See van Beek, Tulp, Egbers-Bogaards, Roozendaal, and Smets, 5222
- Tung, T.-C. See Lin, Lee, and Tung, 276; Shionoya, Arai, Koyanagi, Ohtake, Kobayashi, Kodama, Kato, Tung, and Lin, 2872
- Turner, M. D. See Dexter, Matook, Meitner, Bogaards, Jolly, Turner, and Calabresi, 2705
- Turner, W. A. See Sloane, Honn, Sadler, Turner, Kimpson, and Taylor, 980
- Tutsch, K. D. See Earhart, Tutsch, Koeller, Rodriguez, Robins, Vogel, Davis, and Tormey, 5255
- Twardzik, D. R., Ranchalis, J. E., and Todaro, G. J. Mouse Embryonic Transforming Growth Factors Related to Those Isolated from Tumor Cells, 590
- Tzeng, J. See Poste, Doll, Brown, Tzeng, and Zeidman, 2770

# U

- Uba, G. W. See Miner, Kawaguchi, Uba, and Nicolson, 4631
- Uccini, S. See Ruco, Procopio, Uccini, Marcocelli, and Baroni, 2063
- Uchimar, R. See Yoshizawa, Uchimar, Kamataki, Kato, and Ueno, 1120
- Ueland, P. M. See Helland and Ueland, 1130, 2861
- Ueno, Y. See Yoshizawa, Uchimar, Kamataki, Kato, and Ueno, 1120
- Ueo, H. See Nakano, Bruce, Ueo, and Ts'o, 3132
- Ullrich, R. L. See Ethier and Ullrich, 1753
- Umemoto, N. See Sato, Umemoto, Saito, Masuho, Hara, and Takahashi, 5209
- Umezawa, H. See Fujita, Shinpo, Yamada, Sato, Niimi, Shamoto, Nagatsu, Takeuchi, and Umezawa, 309
- Underwood, B., and Lijinsky, W. Comparative Metabolism of 2,6-Dimethylnitrosomorpholine in Rats, Hamsters, and Guinea Pigs, 54
- Ungerleider, R. S., DeWys, W. D., and Fink, D. J. Pediatric Cancer and Nutrition Workshop: Introductory Comments, 698\*
- Unlu, F. See Buhler, Unlu, Thakker, Slaga, Newman, Levin, Conney, and Jerina, 4779
- Urbach, F. See Forbes, Davies, Urbach, Berger, and Cole, 2796
- Uren, J. R., Hargis, B. J., and Beardsley, P. Immunological and Pharmacological Characterization of Poly-DL-alanyl-modified *Erwinia carotovora* L-Asparaginase, 4068
- Uschmann, B. D. See Salas, Uschmann, and Leboy, 5004

# V

- Vaheri, A. See Alitalo, Hallia, Vesterinen, and Vaheri, 1142
- Vainchenker, W. See Testa, Henri, Bettaieb, Titeux, Vainchenker, Tonthat, Docklear, and Rochant, 4694
- Valerio, F. See Parodi, Pala, Russo, Zunino, Balbi, Albini, Valerio, Cimberle, and Santi, 2277
- Valeriote, F., and Tolen, S. Protection and Potentiation of Nitrogen Mustard Cytotoxicity by WR-2721, page 4330
- Vallera, D. A., Mentzer, S. J., and Maizel, S. E. Tumor Sponge Implantation: An *in Vivo* Method for Studying Syngeneic, Primary Antitumor Lymphocyte Responses, 397
- van Beek, W. P., Tulp, A., Egbers-Bogaards, M., Roozendaal, K. J., and Smets, L. A. Continuous Expression of Cancer-related Fucosyl Glycopeptides on the Surface of Human Promyelocytic Leukemia Cells (HL-60) following Terminal Differentiation *in Vitro*, 5222
- Vandenbark, A. A. See Tong, Vandenbark, Kraybill, Vetto, and Burger, 2949
- van de Putte, P. See Brouwer, Fichtinger-Schepman, van de Putte, and Reedijk, 2416
- van der Bosch, J. See Zirvi, van der Bosch, and Kaplan, 3793
- van der Bosch, J., and Zirvi, K. A. Growth State-specific Responsiveness of Primary Cultures of a Nude Mouse-xenografted Human Colon Carcinoma to 4'-Deoxydoxorubicin and a Crude Human Leukocyte  $\alpha$ -Interferon Preparation, 3789
- Vande Woude, G. F. See Robey, Kuenzel, Vande Woude, and Fischinger, 2523
- van Eys, J. Effect of Nutritional Status on Response to Therapy, 747\*
- van Eys, J., Cangir, A., Carter, P., and Coody, D. Effect of Nutritional Supportive Therapy on Children with Advanced Cancer, 713\*
- Vanhallen, C. P. See Fisher, Silver, Vanhaelen, Jaffe, and Cossman, 2465
- Van Vugt, D. A. See Sylvestre, Aylsworth, Van Vugt, and Meites, 4943
- Varani, J., and Fantone, J. C. Phorbol Myristate Acetate-induced Adherence of Walker 256 Carcinosarcoma Cells, 190
- Varga, J. M., Wieseahn, G., Bartholomew, J. C., and Hearst, J. E. Dose-related Effects of Psoralen and Ultraviolet Light on the Cell Cycle of Murine Melanoma Cells, 2223
- Variakojis, D. See Kaneko, Rowley, Variakojis, Chilcote, Check, and Sakurai, 2918
- Vaughn, C. B. See Hoogstraten, Fletcher, Gad-el-Mawla, Maloney, Altman, Vaughn, and Foulkes, 4788
- Vecchio, G. See Fusco, Pinto, Tramontano, Tajana, Vecchio, and Tsuchida, 618
- Veldhuis, J. D. See Santen, Santhor, Tilsen-Mallett, Rosen, Samojlik, and Veldhuis, 3353\*\*
- Verma, A. K., Conrad, E. A., and Boutwell, R. K. Differential Effects of Retinoic Acid and 7- $\beta$ -Benzoflavone on the Induction of Mouse Skin Tumors by the Complete Carcinogenesis Process and by the Initiation-Promotion Regimen, 3519
- Verma, D. S., and Sunkara, P. S. An Essential Role for Polyamine Biosynthesis during Human Granulopoietic Differentiation, 3046
- Vessella, R. L. See Lange, Millan, Stigbrand, Vessella, Ruoslahti, and Fishman, 3244; Vogelzang, Lange, Goldman, Vessella, Fraley, and Kennedy, 4855
- Vesterinen, E. See Alitalo, Hallia, Vesterinen, and

- Vaheri, 1142
- Vetto, R. M. See Tong, Vandenbark, Kraybill, Vetto, and Burger, 2949
- Viale, A. See DiGiovanni, Miller, Singer, Viale, and Slaga, 2579
- Vic, P., Vignon, F., Derocq, D., and Rochefort, H. Effect of Estradiol on the Ultrastructure of MCF<sub>7</sub> Human Breast Cancer Cells in Culture, 667
- Viotti, T. J. See Berger, Catino, and Viotti, 4382
- Vigersky, R. A. See Riccardi, Vigersky, Barnes, Bleyer, and Poplack, 1617
- Vigneti, E. See Monaco, Vigneti, Lancieri, Cornaglia-Ferraris, Lambertenghi-Deliliers, and Revoltella, 4182
- Vignon, F. See Vic, Vignon, Derocq, and Rochefort, 667
- Viles, J. See Abbas, Yoo, and Viles, 4639
- Villee, C. A. See Lin, Loring, and Villee, 1015
- Vindelov, L. L., Hansen, H. H., Gersel, A., Hirsch, F. R., and Nissen, N. I. Treatment of Small-Cell Carcinoma of the Lung Monitored by Sequential Flow Cytometric DNA Analysis, 2499
- Vinore, S. A., and Koestner, A. Reduction of Ethylnitrosourea-Induced Neoplastic Proliferation in Rat Trigeminal Nerves by Nerve Growth Factor, 1038
- Vlug, A. M. C. See Beemer, Vlug, Rijkse, Hamburg, and Staal, 4228
- Voelkel, J. G. See Borden, Hogan, and Voelkel, 4948
- Vogel, C. L. See Earhart, Tutsch, Koeller, Rodriguez, Robins, Vogel, Davis, and Tormey, 5255
- Vogelzang, N. J., Lange, P. H., Goldman, A., Vessella, R. L., Fraley, E. E., and Kennedy, B. J. Acute Changes of  $\alpha$ -Fetoprotein and Human Chorionic Gonadotropin during Induction Chemotherapy of Germ Cell Tumors, 4855
- Vold, B. S., Keith, D. E., Jr., and Slavik, M. Urine Levels of *N*-[9-( $\beta$ -D-Ribofuranosyl)purin-6-ylcarbamoyl]-L-threonine, *N*<sup>6</sup>-( $\Delta^2$ -Isopentenyl) adenosine, and 2'-O-Methylguanosine as Determined by Radioimmunoassay for Normal Subjects and Cancer Patients, 5265
- Volkenant, M. E. See Robinson, Branum, Volkenant, and Moses, 2633
- Volm, M. See Krieg, Krause-Leipholdt, Wayss, and Volm, 1986
- Vonderhaar, B. K., and Greco, A. E. Effect of Thyroid Status on Development of Spontaneous Mammary Tumors in Primiparous C3H Mice, 4553
- Von Hoff, D. D. See Bhuyan, Newell, Crampton, and Von Hoff, 3532
- Vrotsou, B. See Kyrtopoulos, Hadjiloucas, and Vrotsou, 1962
- Vugrin, D. See Pollack, Vugrin, Hennessy, Herr, Dupont, and Whitmore, 2470
- Vyas, K. P. See Wood, Chang, Levin, Yagi, Tada, Vyas, Jerina, and Conney, 2972
- W**
- Wada, H. See Kurihara, Ogawa, Ohta, Kurokawa, Kitahara, Kosaki, Watanabe, and Wada, 4836
- Wagenaar, E. See Michalides, Wagenaar, and Sluyser, 1154
- Wagner, D. A., Naylor, P. H., Kim, U., Shea, W., Ip, C., and Ip, M. M. Interaction of Dietary Fat and the Thymus in the Induction of Mammary Tumors by 7,12-Dimethylbenz(a)anthracene, 1266
- Wainberg, M. A., Israel, E., and Yu, M. Immune Selection of Tumor Cell Variants in Chickens Bearing Tumors Induced by Avian Sarcoma Virus, 1669
- Wainfan, E. See Dizik, Relyea, and Wainfan, 4064
- Wake, N. See Isaacs, Wake, Coffey, and Sandberg, 2353
- Wake, N., Isaacs, J., and Sandberg, A. A. Chromosomal Changes Associated with Progression of the Dunning R-3327 Rat Prostatic Adenocarcinoma System, 4131
- Walach, N. See Horn, Beal, Walach, Lubich, Spiegel, and Marton, 3248
- Walker, A. R. P. See Hill, Wynder, Garbaczewski, Ganes, and Walker, 2074; Hill, Wynder, Garbaczewski, and Walker, 3864
- Wallace, R. B. See Sherman, Wallace, and Bean, 3286\*\*
- Wallace, R. E. See Citarella, Wallace, Murdock, Angier, Durr, and Forbes, 440
- Wallace, S. See Stewart, Wallace, Feun, Leavens, Young, Handel, Mavligit, and Benjamin, 2059
- Wallace, T. L. See Swenson, Li, Hurley, Rokem, Petzold, Dayton, Wallace, Lin, and Krueger, 2821
- Waller, C. A. See Schirmacher and Waller, 660
- Walter, R. See Berns, Dahlman, Johnson, Burns, Sperling, Guitinan, Siemens, Walter, Wright, Hammer-Wilson, and Wile, 2325
- Wampler, G. L. See Carter, Wampler, Stablein, and Campbell, 2963
- Wander, H-E. See Nagel, Wander, and Blosser, 3442\*\*
- Wang, B. S., Heacock, E. H., Onikil, S. R., Chang-xue, Z., Young, T-h., and Mannick, J. A. Association of Impaired Immune Responsiveness of Lymphocytes from Animals Bearing Large Tumors with a Membrane-bound Suppressive Substance, 416
- Wang, C. Y., Linsmaier-Bednar, E. M., Garner, C. D., and Lee, M-S. Induction of Unscheduled DNA Synthesis in Primary Culture of Dog, Rat, and Mouse Urothelial Cells by Arylamine and Nitrofurans Derivatives, 3974
- Wang, L. W. See Mower, Ichinotsubo, Wang, Mandel, Stemmermann, Nomura, Heilbrun, Kamiyama, and Shimada, 1164
- Wang, M. C. See Frankel, Rouse, Wang, Chu, and Herzenberg, 3714
- Wang, N., Yu, S. H., Liener, I. E., Heibel, R. P., Eaton, J. W., and McKhann, C. F. Characterization of High- and Low-Metastatic Clones Derived from a Methylcholanthrene-induced Murine Fibrosarcoma, 1046
- Wansor, K. J. See Parsons, Marko, Braun, and Wansor, 4574
- Warburton, M. J. See Gusterson, Warburton, Mitchell, Ellison, Neville, and Rudland, 4763; Rudland, Gusterson, Hughes, Ormerod, and Warburton, 5196
- Ward, J. F. See Calabro-Jones, Byfield, Ward, and Sharp, 4413
- Ward, P. M. See Weiss and Ward, 1898
- Ware, J. L., Paulson, D. F., Parks, S. F., and Webb, K. S. Production of Monoclonal Antibody  $\alpha$ Pro3 Recognizing a Human Prostatic Carcinoma Antigen, 1215
- Warner, N. L. See Burchiel, Martin, Imai, Ferrone, and Warner, 4110
- Warren, L. See Cossu, Kuo, Pessano, Warren, and Cooper, 484
- Warters, R. L. See Henle and Warters, 2171
- Warters, R. L., and Henle, K. J. DNA Degradation in Chinese Hamster Ovary Cells after Exposure to Hyperthermia, 4427
- Wasson, D. B. See Carson and Wasson, 4321
- Watanabe, H. See Sakakibara, Suzuki, Motoyama, Watanabe, and Nagai, 2019
- Watanabe, I. See Todoroki, Koike, Tsunemoto, and Watanabe, 5231
- Watanabe, K. See Kannagi, Levine, Watanabe, and Hakomori, 5249
- Watanabe, K. A. See Burchenal, Chou, Lokys, Smith, Watanabe, Su, and Fox, 2598; Chou, Burchenal, Schmid, Braun, Su, Watanabe, Fox, and Philips, 3957
- Watanabe, M. See Tanaka and Watanabe, 3837
- Watanabe, S. See Nakao, Matsuda, Fujita, Watanabe, Morikawa, Saita, and Ito, 3843
- Watanabe, S. See Yutsudo, Tanigaki, Tsumori, Watanabe, and Hakura, 2440
- Watanabe, T. See Kurihara, Ogawa, Ohta, Kurokawa, Kitahara, Kosaki, Watanabe, and Wada, 4836

- Watson, R. R. See Petro and Watson, 2139
- Wattenberg, L. W. See Lam, Sparrins, and Wattenberg, 1193; Sparrins, Chuan, and Wattenberg, 1205
- Watts, K. P. See Fairchild, Greenberg, Watts, Packer, Atkins, Som, Hannon, Brill, Fand, and McNally, 556
- Waxman, S. See Scher, Scher, Robinson, and Waxman, 1300
- Wayss, K. See Krieg, Krause-Leipholdt, Wayss, and Volm, 1986
- Webb, K. S. See Ware, Paulson, Parks, and Webb, 1215
- Webb, T. E. See Schumm and Webb, 4964
- Weber, G. See Denton, Lui, Aoki, Sebott, Takeda, Eble, Glover, and Weber, 1176; Lapis and Weber, 1159
- Weetman, R. M. See Rickard, Baehner, Coates, Weetman, Provisor, and Grosfeld, 766\*
- Wei, J-W., Morris, H. P., and Hickie, R. A. Positive Correlation between Calmodulin Content and Hepatoma Growth Rates, 2571
- Weiner, J. N. See Chlebowski, Gota, Chan, Weiner, Block, and Bateman, 4827
- Weinhold, K. J., and Wheelock, E. F. Cross-Reacting Antigens on L5178Y Cells Which Serve as Targets for Cytotoxic T-Lymphocyte Lysis during Establishment of the Tumor Dormant State, 3607
- Weinhouse, S. Prometheus and Pandora-Cancer Research on Our Diamond Anniversary: Presidential Address, 3471. See also Yoshida, Shah, and Weinhouse, 3526
- Weinkam, R. J., and Deen, D. F. Quantitative Dose-Response Relations for the Cytotoxic Activity of Chloroethylnitrosoureas in Cell Culture, 1008
- Weinstein, I. B. See Backer and Weinstein, 2764; Fisher, Miranda, Mufson, Weinstein, Fujiki, Sugimura, and Weinstein, 2829
- Weinstein, L. S. See Fisher, Miranda, Mufson, Weinstein, Fujiki, Sugimura, and Weinstein, 2829
- Weinstein, R. S. See Pauli and Weinstein, 2289
- Weir, E. C., Cashmore, A. R., Dreyer, R. N., Graham, M. L., Hsiao, N., Moroson, B. A., Sawicki, W. L., and Bertino, J. R. Pharmacology and Toxicity of a Potent "Nonclassical" 2,4-Diamino Quinazoline Folate Antagonist, Trimetrexate, in Normal Dogs, 1696
- Weiss, G. R., McGovern, J. P., Schade, D., and Kufe, D. W. Phase I and Pharmacological Study of Acicivir by 24-Hour Continuous Infusion, 3892
- Weiss, L., and Ward, P. M. Arrest and Retention of Circulating Cancer Cells in the Lungs of Animals with Defined Metastatic Status, 1898
- Weisz, J. In Vitro Assays of Aromatase and Their Role in Studies of Estrogen Formation in Target Tissues, 3295\*\*
- Welker, R. D. See Bartocci, Read, Welker, Schlick, Papademetriou, and Chirigos, 3514
- Wells, R. S. An In Vitro Assay for Growth Regulation of Embryonal Carcinoma by the Blastocyst, 2736. See also Pierce, Pantazis, Caldwell, and Wells, 1082
- Wells, S. A., Jr., Worgul, T. J., Samojlik, E., Boucher, A. E., Lipton, A., Harvey, H., White, D., Smart, E., Cox, C., and Santen, R. J. Comparison of Surgical Adrenalectomy to Medical Adrenalectomy in Patients with Metastatic Carcinoma of the Breast, 3454\*\*
- Wenk, M. See Yuspa, Spangler, Donahoe, Geusz, Ferguson, Wenk, and Hennings, 437
- Werline, J. A. See Wheeler, Bowdon, Werline, Adamson, and Temple, 791
- Wernz, J. C. See Spiegel, Blum, Levin, Pinto, Wernz, Speyer, Huffman, and Muggia, 354
- Wesley, R. A. See Roth and Wesley, 3978
- West, A. See Good, West, Day, Dong, and Fernandes, 737\*
- West, D. See Park, Fujino, West, Guengerich, and Gelboin, 1798

- West, D. W. See Hartge, Hoover, Altman, Austin, Cantor, Child, Key, Mason, Marrett, Myers, Narayana, Silverman, Sullivan, Swanson, Thomas, and West, 4784
- Westman, N. G. See Marklund, Westman, Lundgren, and Roos, 1955
- Wetterhahn, K. E. See Ciccarelli and Wetterhahn, 3544
- Whitley, S. A. See Hill, Whitley, Bellamy, Jenkins, and Whelan, 2852
- Wheatley, C. See Evans, Engel, Wheatley, and Nielsen, 3074
- Wheatley, W. L. See Benedict, Wheatley, and Jones, 1041
- Wheeler, G. P., Bowdon, B. J., Werline, J. A., Adamson, D. J., and Temple, C. G., Jr. Inhibition of Mitosis and Anticancer Activity against Experimental Neoplasms by Ethyl 5-Amino-1,2-dihydro-3-[(N-methylanilino)methyl]pyrido-[3,4-b]pyrazin-7-ylcarbamate (NSC 181928), page 791
- Wheelock, E. F. See Weinhold and Wheelock, 3607
- Whelan, R. D. H. See Hill, Whitley, Bellamy, Jenkins, and Whelan, 2852
- White, A. C., Levy, J. A., and McGrath, C. M. Site-selective Growth of a Hormone-responsive Human Breast Carcinoma in Athymic Mice, 906
- White, D. S. See Harvey, Lipton, White, Santen, Boucher, Shafik, Dixon, and Members of The Central Pennsylvania Oncology Group, 3451\*\*
- White, E. L., Shaddix, S. C., Brockman, R. W., and Bennett, L. L., Jr. Comparison of the Actions of 9- $\beta$ -D-Arabinofuranosyl-2-fluoroadenine and 9- $\beta$ -D-Arabinofuranosyladenine on Target Enzymes from Mouse Tumor Cells, 2260
- Whiteaker, S. See Yoo, Kuo, Spector, Denning, Floyd, Whiteaker, Kim, Kim, Abbas, and Budd, 3596
- Whitehurst, G. B. See Pretlow, Whitehurst, Pretlow, Hunt, Jacobs, McKenzie, McDaniel, Hall, and Bradley, 4842
- Whitehurst, G. B., Mashburn, J. P., Pretlow, T. G., II, Bradley, E. L., Jr., and Boohaker, E. A. Prostatic Hexosaminidase Activity in Patients with Benign Prostatic Hyperplasia and Prostatic Carcinoma, 4300
- Whitlock, J. P., Jr. See Miller and Whitlock, 4473
- Whitmore, W. F., Jr. See Klein, Melamed, Whitmore, Herr, Sogani, and Darzynkiewicz, 1094
- Wigmore, Vugrin, Hennessy, Herr, Dupont, and Whitmore, 2470
- Wiemann, M. C., Cummings, F. J., Kaplan, H. G., Spremulli, E. N., Doolittle, C. H., and Calabresi, P. Clinical and Pharmacological Studies of Methotrexate-Minimal Leucovorin Rescue plus Fluorouracil, 3896
- Wiesehahn, G. See Varga, Wiesehahn, Bartholomew, and Hearst, 2223
- Wiesler, M. See Hodgson, Schweinsberg, Wiesler, and Kleihues, 2836
- Wikstrand, C. J., and Bigner, D. D. Expression of Human Fetal Brain Antigens by Human Tumors of Neuroectodermal Origin as Defined by Monoclonal Antibodies, 267
- Wile, A. See Berns, Dahlman, Johnson, Burns, Sperling, Gullinan, Siemens, Walter, Wright, Hammer-Wilson, and Wile, 2325
- Wilhelm, R. See Rabes, Wilhelm, Kerler, and Rode, 3814
- Wilimas, J. See Dow, Bhakta, and Wilimas, 5262
- Wilking, N. See Pousette, Carlström, Sködefors, Wilking, and Theve, 633
- Wille, J. J., Jr., Maercklein, P. B., and Scott, R. E. Neoplastic Transformation and Defective Control of Cell Proliferation and Differentiation, 5139
- Williams, C. J. See Berrigan, Marinello, Pavelic, Williams, Struck, and Gurtoo, 3688
- Williams, G. M. See Hirota and Williams, 2298
- Williams, G. M., and Ichihara, A. Carcinogenesis and Gene Expression in Liver Cultures, 2462, Meeting Report
- Williams, L. See Kelsen, Scher, Alcock, Leyland-Jones, Donner, Williams, Greene, Burchenal, Tan, Philips, and Young, 4831
- Wilmanns, W. See Dörmer, Sauer, Schalthorn, and Wilmanns, 1604
- Fink, Ziegler, Maier, and Wilmanns, 1574
- Wilson, A. G. E. See Ioannou, Wilson, and Anderson, 1199
- Wilson, B. S. See Natali, Wilson, Imai, Bigotti, and Ferrone, 583
- Wilson, E. L. See Hoal, Wilson, and Dowdle, 5191
- Wilson, E. M., French, F. S., and Petrusz, P. Transferrin in the Rat Prostate Dunning Tumor, 243
- Winter, H. See Schweizer and Winter, 1517
- Witkoski, E., Kepner, N., Leitzel, K., Rogers, C., Jefferson, L. S., and Lipton, A. Enhanced Tumor Growth *In Vivo* by a Factor in Human Platelets and Rat Liver, 2350
- Witter, J. P., Balish, E., and Gatley, S. J. Origin of Excess Urinary Nitrate in the Rat, 3654
- Wogan, G. N. See Groopman, Haugen, Goodrich, Wogan, and Harris, 3120
- Wojtkowiak, Z., Duhl, D. M., Briggs, R. C., Hnilica, L. S., Stein, J. L., and Stein, G. S. A Nuclear Matrix Antigen in HeLa and Other Human Malignant Cells, 4546
- Wolf, G. See Bolmer and Wolf, 4465
- Wolf, G. See Bradley, Dysart, Fitzsimmons, Harbach, Lewin, and Wolf, 2592
- Wolff, S. See Hill and Wolff, 893
- Wong, A. See McLachlan, Wong, Degen, and Barrett, 3040
- Wood, A. W. See Chang, Levin, Wood, Lehr, Kumar, Yagi, Jerina, and Conney, 25
- Wood, A. W., Chang, R. L., Levin, W., Yagi, H., Tada, M., Vyas, K. P., Jerina, D. M., and Conney, A. H. Mutagenicity of the Optical Isomers of the Diastereomeric Bay-Region Chrysene 1,2-Diol-3,4-epoxides in Bacterial and Mammalian Cells, 2972
- Wood, C. A. See Niell, Wood, Mickey, and Soloway, 807
- Wood, J. See Riccardi, Chabner, Glaubiger, Wood, and Poplack, 1736
- Woodcock, D. M., Adams, J. K., and Cooper, I. A. Relationship between Aberrant DNA Replication and Loss of Cell Viability in Chinese Hamster Ovary CHO-K1 Cells, 4744
- Woods, G. R. See MacIndoe, Woods, Etre, and Covey, 3378\*\*
- Woods, R. L. See Kaye, Woods, Fox, Coates, and Tattersall, 3445\*\*
- Worgul, T. J. See Santen, Worgul, Samojlik, Boucher, Lipton, and Harvey, 3397\*\*
- Wells, Worgul, Samojlik, Boucher, Lipton, Harvey, White, Smart, Cox, and Santen, 3454\*\*
- Worton, E. See Kirschner, Schneider, Ertel, and Worton, 3281\*\*
- Wotring, L. L. See Bloomer, Wotring, and Townsend, 100
- Wray, N. P. See Kouri, McKinney, Slomiany, Snodgrass, Wray, and McLemore, 5030
- Wright, G. L., Jr. See Starling, Sieg, Beckett, Schellhammer, Ladaga, and Wright, 3084
- Wright, W. See Berns, Dahlman, Johnson, Burns, Sperling, Gullinan, Siemens, Walter, Wright, Hammer-Wilson, and Wile, 2325
- Wu, B. See Galvan, Evans, Huang, Prestayko, Wu, and Crooke, 1555
- Wynder, E. L. See Hill, Wynder, Garbaczewski, Ganes, and Walker, 2074
- Hill, Wynder, Garbaczewski, and Walker, 3864
- Yagi, H. See Chang, Levin, Wood, Lehr, Kumar, Yagi, Jerina, and Conney, 25
- Wood, Chang, Levin, Yagi, Tada, Vyas, Jerina, and Conney, 2972
- Yagoda, A. See Kreis, Arlin, Yagoda, Leyland-Jones, and Fiori, 2514
- Yalowich, J. C. See Fry, Yalowich, and Goldman, 2532
- Yalowich, J. C., Fry, D. W., and Goldman, I. D. Teniposide (VM-26)- and Etoposide (VP-16-213)-induced Augmentation of Methotrexate Transport and Polyglutamylation in Ehrlich Ascites Tumor Cells *In Vitro*, 3648
- Yamada, K. See Fujita, Shinpo, Yamada, Sato, Niimi, Shamato, Nagatsu, Takeuchi, and Umezawa, 309
- Yamamoto, M. See Takada, Hirooka, Hiramatsu, and Yamamoto, 331
- Yamamoto, S. See Nakadate, Yamamoto, Ishii, and Kato, 2841
- Yamamoto, T. See Osawa, Tochigi, Higashiyama, Yarbrough, Nakamura, and Yamamoto, 3299\*\*
- Yamamoto, T. See Hosoi, Nakamura, Higashi, Yamamoto, Toyama, Shinomiya, and Mikawa, 654
- Yamane, T. See Nakabayashi, Taketa, Miyano, Yamane, and Sato, 3858
- Yamazaki, M. See Iwata-Dohi, Esumi-Kurisu, Ikenami, Sadatsune, Mizuno, and Yamazaki, 3196
- Yang, J. See Guzman, Osborn, Yang, DeOme, and Nandi, 2376
- Yang, L. Y. See Drewinko, Yang, and Barlogie, 107
- Yanovich, S., and Taub, R. N. Digitized Video Fluorescence Microscopy Studies of Adriamycin Interaction with Single P388 Leukemic Cells, 3583
- Yarbrough, C. See Osawa, Tochigi, Higashiyama, Yarbrough, Nakamura, and Yamamoto, 3299\*\*
- Yarkoni, E., Ashley, M. P., Zbar, B., Sugimoto, T., and Rapp, H. J. Eradication by Active Specific Immunotherapy of Established Tumor Transplants and Microscopic Lymph Node Metastases, 2544
- Yasuno, M. See Fujiwara, Saikusa, Yasuno, and Kitagawa, 1487
- Yessierli, D. W. See Chadwick, Silveira, MacGregor, Branford, Liss, and Yessierli, 627
- Yielding, K. L. See Kulkarni, Cox, and Yielding, 2792
- Ying, T. S., Enomoto, K., Sarma, D. S. R., and Farber, E. Effects of Delays in the Cell Cycle on the Induction of Preneoplastic and Neoplastic Lesions in Rat Liver by 1,2-Dimethylhydrazine, 876
- Yokoyama, M., Kitamura, Y., Kohrogi, T., and Miyoshi, I. Necessity of Bile for and Lack of Inhibitory Effect of Retinoid on Development of Forestomach Papillomas in Nontreated Mutant Mice of the W/W<sup>o</sup> Genotype, 3806
- Yokoyama, S., Kaneko, A., Dempo, K., Chisaka, N., Mori, M., and Onoe, T. Histochemical and Cytochemical Study of Butyrylcholinesterase Activity in Rat Hepatocellular Carcinomas Induced by 3'-Methyl-4-dimethylaminoazobenzene, 4158
- Yonemoto, R. H. See Chee, Yonemoto, Leong, Richards, Smith, Klotz, Goto, Gascon, and Drushella, 3142
- Yoo, T.-J. See Abbas, Yoo, and Viles, 4639
- Yoo, T.-J., Kuo, C.-Y., Spector, A. A., Denning, G. M., Floyd, R., Whiteaker, S., Kim, H., Kim, J., Abbas, M., and Budd, T. W. Effect of Fatty Acid Modification of Cultured Hepatoma Cells on Susceptibility to Natural Killer Cells, 3596
- Yoshida, A. See Yoshida, Yoshida, Fukunishi, Sato, Okamoto, and Matsumoto, 2434
- Yoshida, C., Shah, H., and Weinhouse, S. Purification and Properties of Inorganic Pyrophosphatase of Rat Liver and Hepatoma 3924A, page 3526
- Yoshida, H., Yoshida, A., Fukunishi, R., Sato, B.,



- Okamoto, S., and Matsumoto, K.** Biological Characteristics and Estrogen and Progesterone Receptors in Mammary Carcinoma Induced in Male Sprague-Dawley Rats by a Series of Intra-gastric Intubations of 7,12-Dimethylbenz(a)anthracene, 2434
- Yoshida, N.** See Inaba, Fukui, Yoshida, Tsukagoshi, and Sakurai, 1103
- Yoshida, S.** See Tanaka and Yoshida, 649
- Yoshima, H.** See Shiraishi, Yoshima, Maeda, Mizoguchi, Matsumoto, Sugiyama, and Kobata, 2884
- Yoshioka, T.** See Koyama, Yoshioka, and Sakita, 3215
- Yoshizawa, H., Uchimar, R., Kamataki, T., Kato, R., and Ueno, Y.** Metabolism and Activation of Aflatoxin B<sub>1</sub> by Reconstituted Cytochrome P-450 System of Rat Liver, 1120
- Youn, J. K., Lacour, F., and Hue, G.** Inhibition of C3H/He Mouse Mammary Tumor Growth by Combined Treatment with Cyclophosphamide and Polyadenylic-Polyuridylic Acid, 4706
- Young, C. W.** See Kelsen, Scher, Alcock, Leyland-Jones, Donner, Williams, Greene, Burchenal, Tan, Philips, and Young, 4831; Martin, Stolfi, Sawyer, Spiegelman, and Young, 3964
- Young, R. C.** See Ozols, Young, Speyer, Sugarbaker, Greene, Jenkins, and Myers, 4265; Schilsky, Kelley, Ihde, Howser, Cordes, and Young, 1582
- Young, S. E.** See Stewart, Wallace, Feun, Leavens, Young, Handel, Mavligit, and Benjamin, 2059
- Young, T.-h.** See Wang, Heacock, Onikul, Changxue, Young, and Mannick, 416
- Yu, J.** See Osborne, Bakke, and Yu, 513
- Yu, M.** See Wainberg, Israel, and Yu, 1669
- Yu, M. C.** See Lam, Yu, Leung, and Henderson, 5246; Preston-Martin, Yu, Benton, and Henderson, 5240
- Yu, S. H.** See Wang, Yu, Liener, Hebbel, Eaton, and McKhann, 1046
- Yuhki, N.** See Mizushima, Yuhki, Hosokawa, and Kobayashi, 5176
- Yung, W.-K. A., Shapiro, J. R., and Shapiro, W.**

- R.** Heterogeneous Chemosensitivities of Subpopulations of Human Glioma Cells in Culture, 992
- Yuspa, S. H., Ben, T., Hennings, H., and Lichti, U.** Divergent Responses in Epidermal Basal Cells Exposed to the Tumor Promoter 12-O-Tetradecanoylphorbol-13-acetate, 2344
- Yuspa, S. H., Spangler, E. F., Donahoe, R., Geusz, S., Ferguson, E., Wenk, M., and Hennings, H.** Sensitivity to Two-Stage Carcinogenesis of SENCAR Mouse Skin Grafted to Nude Mice, 437
- Yutsudo, M., Tanigaki, T., Tsumori, T., Watanabe, S., and Hakura, A.** New Human Papilloma Virus Isolated from Epidermodysplasia Verruciformis Lesions, 2440

## Z

- Zakrzewski, S. F.** See Bruno, Grindey, Zakrzewski, Priore, Kinahan, Moayeri, Ledesma, Mittelman, and Creaven, 4824
- Zakrzewski, S. F., Pavelic, Z., Greco, W. R., Bullard, G., Creaven, P. J., and Mihich, E.** Toxicity and Pharmacokinetics of a New Antifolate, 2,4-Diamino-5-adamantyl-6-methylpyrimidine, in Dogs, 2177
- Zava, D.** See Coombes, Chilvers, Dowsett, Gazet, Ford, Bettelheim, Gordon, Smith, Zava, Powles, and Investigators of the Collaborative Breast Cancer Project, 3415\*
- Zbar, G.** See Yarkoni, Ashley, Zbar, Sugimoto, and Rapp, 2544
- Zedeck, M. S.** See Banner, Tan, and Zedeck, 2985; Notman, Tan, and Zedeck, 1774
- Zeidman, I.** See Poste, Doll, Brown, Tzeng, and Zeidman, 2770
- Zeiger, E.** See Guthrie, Robertson, Zeiger, Boyd, and Eling, 1620
- Zeman, E. M.** See Leith, Dexter, DeWyngaert, Zeman, Chu, Calabresi, and Glicksman, 2556
- Zerfas, A. J.** See Neumann, Jelliffe, Zerfas, and Jelliffe, 699\*

- Zhang, H. Z.** See Mazumder, Grimm, Zhang, and Rosenberg, 913
- Zheng, S.** See Fisher, Gunduz, Zheng, and Saffer, 540
- Ziegler, D. M.** See Frederick, Mays, Ziegler, Guengerich, and Kadlubar, 2671
- Ziegler, I.** See Fink, Ziegler, Maier, and Wilmanns, 1574
- Ziegler, I., Maier, K., and Fink, M.** Pteridine-binding  $\alpha$ -Acid Glycoprotein from Blood of Patients with Neoplastic Diseases, 1567
- Zirvi, K. A.** See van der Bosch and Zirvi, 3789
- Zirvi, K. A., van der Bosch, J., and Kaplan, N. O.** *In Vitro* Responses of Nude Mouse-xenografted Human Colon Carcinomas Exposed to Doxorubicin Derivatives in Tissue Culture and in the Mouse, 3793
- Zucker, S.** See DiStefano, Beck, Lane, and Zucker, 207
- Zumoff, B.** Relationship of Obesity to Blood Estrogens, 3289\*\*
- Zunino, A.** See Parodi, Pala, Russo, Zunino, Balbi, Albini, Valerio, Cimberle, and Santi, 2277
- Zurlo, J., Culphey, T. J., Hiley, R., and Longnecker, D. S.** Identification of 7-Carboxymethylguanine in DNA from Pancreatic Acinar Cells Exposed to Azaserine, 1286
- Zwelling, L. A.** See Ducore, Erickson, Zwelling, Laurent, and Kohn, 897; Kleinerman, Zwelling, Schwartz, and Muchmore, 1692
- Zwelling, L. A., Kerrigan, D., and Michaels, S.** Cytotoxicity and DNA Strand Breaks by 5-Iminodaunorubicin in Mouse Leukemia L1210 Cells: Comparison with Adriamycin and 4'-(9-Acridinylamino)methanesulfon-*m*-anisidide, 2687
- Zwiebel, J. A., Davis, M. R., Kohn, E., Salomon, D. S., and Kidwell, W. R.** Anchorage-Independent Growth-conferring Factor Production by Rat Mammary Tumor Cells, 5117
- Zychlinski, L.** See Byczkowski, Zychlinski, and Porter, 3592
- Zytovicz, T. H.** Identification and Characterization of a High-Affinity Saturable Binding Protein for the Carcinogen Benzo(a)pyrene, 4387



# Index to Volume 42

## Subject Index

### A

#### Abrins

- Adriamycin
  - Cytotoxicity, mouse, in vivo 2152
  - Leukemia L1210, 2152
- Antineoplastic agents
  - Antitumor activity, mouse, 276
- Sarcoma 180 cells
  - Cytotoxicity, 276
- Meth-A tumor cells
  - Adjuvant activity, mouse, 2872

#### Acenaphthene, 5-nitro-

- Aroclor
  - Metabolites, liver, rat, 1243

#### Acetamide, dimethyl-

- Teratoma
  - Cell differentiation, 1843

#### Acetamide, *N*-fluoren-2-yl, *N*-acetoxy-

- DNA, viral
  - Depurination and mutagenicity 3480

#### Acetamide, *N*-fluoren-2-yl-

- Aldehyde dehydrogenase
  - Hepatocarcinogenesis, rat, 577
- Disulfiram
  - Carcinogenesis inhibition, 2985
  - Normal/regenerating liver/colon, rat, 2985
- DNA
  - Binding, bladder tissue, human/rat, 642
  - DNA adduct formation
    - Liver/kidney, rat, 1317
  - DNA repair
    - Liver, rat, 4203
- Hepatoma
  - Preneoplastic nodules, liver, mouse, 3220
- Metabolism, bladder tissue, human/rat, 642
- Proteins
  - Carcinogenesis, liver, rat, 4664
- Pyrazole
  - Carcinogenesis inhibition, 2985
  - Normal/regenerating liver/colon, rat, 2985
- Selenium
  - Carcinogenesis inhibition, 2985
  - Normal/regenerating liver/colon, rat, 2985
- Acetamide, *N*-hydroxy-*N*-fluoren-2-yl-
  - DNA adducts
    - Liver/kidney, rat, 1348
  - Metabolism, microsomes, liver, guinea pig, 4712

#### *N*-Acetoxyacetylaminofluorene

- see Acetamide, *N*-fluoren-2-yl, *N*-acetoxy-

#### 2-Acetylaminofluorene

- see Acetamide, *N*-fluoren-2-yl-

#### *N*-Acetylcysteine

- Cyclophosphamide
  - Urotoxicity, rat, 3688

#### $\beta$ -*N*-Acetylglucosaminidase

- Circadian rhythm
  - Renal toxicity, rat, 950

#### $\alpha$ , $\gamma$ -Acid glycoprotein

- Epithelium
  - Normal/neoplastic breast tissue, human, 4567

#### Acivicin

- Antineoplastic agents
  - Phase I clinical trial, 3892

#### Acclinomycin A

- Friend leukemia cells
  - Uptake/transport/nuclear incorporation, 1950

#### 4'-(9-Acridinylamino)methanesulfon-m-anisidide

- LoVo colon carcinoma cells
  - Cytotoxicity, in vitro, 107
- L1210 leukemia cells
  - DNA strand breaks vs cytotoxicity, 2687
- Neoplastic cells, human
  - Chemosensitivity, in vitro, 4495
- T<sub>1</sub> lymphoma cells
  - Cytotoxicity, in vitro, 107
- Immunity, cellular
  - Monocyte-mediated cytotoxicity 1692
- Leukemia(s)
  - Phase II clinical trial, child patient, 1579
- Lymphoma, non-Hodgkin's
  - Phase II clinical trial, child patient, 1579

#### Acrolein

- Cyclophosphamide, 4-hydroperoxy-
  - Catalysis conditions in vitro, 830
- Cyclophosphamide, 4-hydroxy-
  - Catalysis conditions in vitro, 830
- Salmonella typhimurium*
  - Mutagenicity/teratogenicity, 3106

#### Actin

- Epithelium
  - Cell transformation, neoplastic 4591

#### Actin (cont'd)

- Metastases
  - K-1735 melanoma cells, 5183
  - UV-2237 mouse fibrosarcoma cells, 5183
- Vinblastine
  - CCRF-CEM leukemia cells, 1384
  - Drug mechanism of action, 1384

#### Actinomycin D

- Antibodies
  - Radioimmunoassay, dog/human 1184
- Antigens, neoplasm
  - K-562 leukemia cells, 4694
- MM46 mouse mammary carcinoma cells
  - Antibody-dependent macrophage-mediated cytotoxicity, 3196
- DNA
  - Free radical formation, cell nuclei, rat, 1078
- Immunity, cellular
  - Monocyte-mediated cytotoxicity 1692

#### Adenine, 9- $\beta$ -D-arabinofuranosyl-

- S*-Adenosyl-L-homocysteine hydrolase
  - CHO cells, 4991
  - HeLa S3 cells, 4991
  - L1210 leukemia cells, 4991
- S*-Adenosylhomocysteine hydrolase
  - K562 human leukemia cells 1130
  - L-929 mouse fibroblast cells 1130
  - MPC-11 myeloma cells, 1130
  - Enzyme activity, isolated/cultured/hepatocytes, rat 2861
- HEp-2 carcinoma cells
  - Enzyme inhibition, 2260
- L1210 leukemia cells
  - Enzyme inhibition, 2260
- Coformycin, 2'-deoxy-
  - Leukemia, lymphoblastic, 2092 3884
  - Phase I clinical trial, 3884
  - Triphosphate levels, leukemic cells/erythrocytes, 2092
  - Enzyme inactivation, 1130

#### Adenine, 9- $\beta$ -D-arabinofuranosyl-2-fluoro-

- HEp-2 carcinoma cells
  - Enzyme inhibition, 2260
- L1210 leukemia cells
  - Enzyme inhibition, 2260
- DNA synthesis
  - Comparison of two dose schedules, mouse, 2587
- Leukemia, P388
  - Comparison of two dose schedules, mouse, 2587

- Adenine, 9- $\beta$ -D-arabinofuranosyl-, 5'-triphosphate**  
 Antineoplastic agents  
 Mechanism of cytotoxic action 3637  
 HEp-2 carcinoma cells  
 Enzyme inhibition, 2260  
 L1210 leukemia cells  
 Enzyme inhibition, 2260
- Adenine, erythro-9(2-hydroxy-3-nonyl)-**  
 Adenosine, 2'-deoxy-  
 Mechanism of action, 3822  
 Ribonucleotide reductase  
 L1210 leukemia cells, 4353
- Adenine phosphoribosyltransferase**  
 5-Carbamoyl-1*H*-imidazol-4-yl piperonylate, 1098  
 4-Carbamoylimidazolium 5-olate  
 FM3A mouse mammary cells 4210  
 Cytotoxicity, mechanism, 4210
- Adenocarcinoma**  
 Pancreatic neoplasms  
 Antineoplastic agents, 2666  
 pH  
 Glucose, 1505  
 Range in neoplastic/normal tissue, rat, 1505
- Adenocarcinoma, 4047**  
 Epithelial cells  
 Morphology/karyotyping, 5074
- Adenocarcinoma, Dunning B-3327-G**  
 Androgens  
 Growth, normal/castrated rat 3148
- Adenocarcinoma, Dunning R-3327-AT**  
 Prostatic neoplasms  
 Androgens, 5010  
 Hormonal responsiveness, rat, in vivo, 5010
- Adenocarcinoma, 13762**  
 RNA, transfer  
 Methyltransferase, 5004
- Adenomas**  
 Colon neoplasms  
 Epithelium, 4280  
 Kinetics/location proliferating cells, in vivo, 4280
- Adenosine**  
 HeLa cells  
 Cell transport mechanism, 1289  
 L5178Y lymphoma cells  
 Cell transport mechanism, 1289
- Adenosine cyclic 3':5'-monophosphate**  
 HL-60 leukemia cells  
 Cell differentiation, 3928  
 U-937 human histiocytic lymphoma cells  
 Cell differentiation, 3924, 3928  
 Drug synergism  
 L1210 leukemia cells, 2742  
 Guanidine, *N*-methyl-*N'*-nitro-*N'*-
- Adenosine cyclic 3':5'-monophosphate (cont'd)**  
 nitroso-  
 Cell transformation, neoplastic 1274  
 Syrian hamster embryo cells 1274  
 Guanosine cyclic 3':5'-monophosphate  
 Prognosis/monitoring preneoplastic lesions, human, 2938  
 Urine levels, 2938
- Adenosine cyclic 3':5'-monophosphate phosphodiesterase**  
 Breast neoplasms  
 Microanalysis, 1661  
 Neoplasm cell heterogeneity 1661
- Adenosine deaminase**  
 Adenine, 9- $\beta$ -D-arabinofuranosyl-  
 Triphosphate levels, leukemic cells/erythrocytes, 2092  
 Immunosuppression  
 Non-dividing cell populations 324
- Adenosine, 2'-deoxy-**  
 Adenine, erythro-9-[3-(2-hydroxynonyl)]-  
 Mechanism of action, 3822  
 S-Adenosyl-L-homocysteine hydrolase  
 CHO cells, 4991  
 HeLa S3 cells, 4991  
 L1210 leukemia cells, 4991  
 Lymphocytes  
 S-Adenosylhomocysteine hydrolase, 3822  
 Mechanism of action, 3822  
 Non-dividing cell populations 324  
 Ribonucleotide reductase  
 L1210 leukemia cells, 4353  
 Thymocytes  
 Non-dividing cell populations 324
- Adenosine, N<sup>6</sup>-(6'-isopentyl)-**  
 Radioimmunoassay  
 Biological marker, cancer patient 5265
- Adenosine 5'-triphosphate**  
 5'-Nucleotidases  
 Neoplastic cells, human, 4321  
 Lymphocytes, 4321
- Adenosin**  
 Diethylstilbestrol  
 Cervicovaginal epithelium, 2003  
 Neonatal/young/adult mouse 2003
- S-Adenosyl-L-homocysteine hydrolase**  
 Adenine, 9- $\beta$ -D-arabinofuranosyl-  
 CHO cells, 4991  
 HeLa S3 cells, 4991  
 K562 human leukemia cells 1130
- S-Adenosyl-L-homocysteine hydrolase (cont'd)**  
 L-929 mouse fibroblast cells 1130  
 L1210 leukemia cells, 4991  
 MPC-11 myeloma cells, 1130  
 Enzyme activity, isolated/cultured/hepatocytes, rat 2861  
 Adenosine, 2'-deoxy  
 CHO cells, 4991  
 HeLa S3 cells, 4991  
 L1210 leukemia cells, 4991  
 Lymphocytes, 3822
- S-Adenosyl-L-methionine decarboxylase**  
 L-Tryptophan  
 Enzyme activity, bladder, mouse 3587
- Adenylosuccinate synthetase**  
 Yoshida sarcoma ascites cells  
 Nucleotide synthesis, 112  
 Purification/transformation, 112
- Adriamycin**  
 Abrin  
 Leukemia L1210, 2152  
 Antineoplastic agents  
 Anti-tumor activity, mouse, 1462  
 Tumor model, mouse, 440  
 Ascorbate  
 Cardiomyopathy, guinea pig, 309  
 Leukemia L1210, 309  
 Lipid peroxide, 309  
 Calcium  
 P388 mouse leukemia cells, 4730  
 Calmodulin  
 P388 mouse leukemia cells, 4730  
 B16 melanoma cells, 3532  
 CHO cells, 3532, 3631  
 HT-29 colon carcinoma cells  
 Cytotoxicity, 117  
 L1210 leukemia cells  
 DNA strand breaks vs cytotoxicity, 2687  
 P388 leukemia cells  
 Video fluorescence microscopy 3583  
 2,4-Dinitrophenol  
 CHO cells, 3934  
 DNA  
 Free radical formation, cell nuclei, rat, 1078  
 D-Glucose, 2-deoxy-  
 CHO cells, 3934  
 Immunity, cellular  
 Monocyte-mediated cytotoxicity 1692  
 Liposomes  
 Cardiotoxicity, mouse, 4734  
 Macrophages  
 Cytotoxicity, 3851  
 Ovarian neoplasms  
 Phase I clinical trial i.p. administration, 4265  
 Oxygen  
 Mammary neoplasms, 4921  
 RNA

- Adriamycin (cont'd)**  
Myocardium, rat, 79  
X-rays  
Survival, normal rat, 2656
- Adriamycin, 4'-O-tetrahydropyranyl-**  
Antineoplastic agents  
Anti-tumor activity, mouse, 1462
- Aflatoxin B<sub>1</sub>**  
Cytochrome P-450  
Metabolism and activation, 1120  
DNA  
Antibodies, monoclonal, 3120  
Glutathione, 3659  
Linear dose-response curve  
Liver macromolecular binding, rat, 3659  
Mitochondria  
Carcinogenic mechanism, liver, rat, in vivo, 1876  
Transcription/translation, in vivo, 1876
- Agar diffusion chamber**  
Drug sensitivity  
Assay system, in vitro, 4758  
Neoplastic cells, human, 4758
- Aging**  
Dietary factors  
Immune response, mouse/human, 737s
- Alanine**  
Glucose  
Metabolism, tumor-bearing rat, 4936
- Albumin**  
Amino acids  
Degradation, liver, mouse, 2284  
 $\alpha$ -Fetoprotein  
Serum concentration, perinatal rat, 306  
Thioacetamide  
Liver, rat, 421
- Alcohol**  
Virus, hepatitis B  
Hepatoma, 5246
- Alcohol dehydrogenase**  
Methanol, (methyl-oxo-azoxy)-  
Carcinogenic activity, gastrointestinal/skin/kidney, rat, 1774
- Aldehyde dehydrogenase**  
Acetamide, *N*-fluorenyl-  
Hepatocarcinogenesis, rat, 577  
Barbituric acid, 5-ethyl-5-phenyl-  
Hepatocarcinogenesis, rat, 577
- Aldolase**  
Retinoblastoma  
Neoplastic/normal retina tissue, enzyme isozymes, human, 4228
- Alkylating agents**  
Anemia, Fanconi's  
DNA, 4000  
Genes, viral
- Alkylating agents (cont'd)**  
AKR mouse embryo cells, 3050
- Alloantigens**  
Cell transformation, neoplastic  
Cell membrane markers, 227  
Genotypic mosaic liver, rat, 227  
Hepatocarcinogenesis, rat, 227
- Ames test**  
*see also Salmonella typhimurium*  
Colonic neoplasms  
Fecal mutagens, 1164  
Praziquantel  
Acridine, 2-methoxy-6-chloro-9-[3-(2-chloroethyl)aminopropylamino]-, 2692  
Guanidine, *N*-methyl-*N'*-nitro-*N'*-nitroso-, 2692
- Amino acids**  
Anti-tumor effects  
Review, 756s  
Cachexia  
Metabolism, cancer patient, 4293  
Protein kinetics, rat, 824  
Cell transformation, viral  
SV3T3 fibroblast cells, 4690  
Fibrosarcoma  
Protein kinetics, rat, 824  
Tissue isolated neoplasms, rat, 4090
- 2-Amino-4-(5-nitro-2-furyl)-1,3,4-thiazole**  
*see* 1,3,4-Thiazole, 2-amino-4-(5-nitro-2-furyl)-
- Aminoglutethimide**  
 $\delta^5$ -Androstene-3 $\beta$ ,17 $\beta$ -diol  
Breast neoplasms, 4797  
Aromatase  
Antineoplastic agents, 3315  
Enzyme inhibition, 3315, 3353, 3378  
Breast neoplasms  
Antineoplastic agents, 3445  
Pharmacokinetics, human, in vivo, 3353  
Steroid hormones, blood/urine, cancer patients, 3349  
Surgical vs pharmacological adrenalectomy, 3389  
Corticosteroids  
Pharmacokinetics, human, in vivo, 3353  
Danazol  
Breast neoplasms, 3458  
Dexamethasone  
Breast neoplasms, 3402  
Therapeutic response in metastatic disease, human, 3402  
Estrogens  
Biosynthesis, human tissues, in vivo, 3353  
Steroid hormones, plasma/urine, cancer patients, 3397  
Hydrocortisone  
Breast neoplasms, 3397, 3405, 3415, 3434, 3454  
Steroid hormones, plasma/urine, cancer patients, 3397
- Aminoglutethimide (cont'd)**  
Therapeutic response in metastatic disease, human, 3405  
Medroxyprogesterone acetate  
Breast neoplasms, 3442  
Tamoxifen  
Breast neoplasms, 3409, 3430, 3437, 3448, 3451, 3458, 3461
- $\alpha$ -Aminoisobutyrate**  
Calcium  
McA-RH 8994 rat hepatoma cells, 3116
- 6-Aminonicotinamide**  
*see* Nicotinamide, 6-amino-
- S-2-(3-Aminopropylamino)ethylphosphorothioic acid**  
*see* Phosphorothioic acid, S-(2-(3-aminopropylamino)ethyl) ester
- Aminopyrine demethylase**  
Cyclophosphamide  
Urotoxicity, rat, 3688
- Amphibians**  
12-O-Tetradecanoylphorbol-13-acetate  
Embryo/blastomere reactions and alterations, 2804
- Amyloid A**  
Kidney neoplasms  
Amyloid fibril structure, 1600  
Mesothelioma  
Amyloid fibril structure, 1600
- Amyloidosis**  
Kidney neoplasms  
Amyloid fibril structure, 1600  
Mesothelioma  
Amyloid fibril structure, 1600
- Androgens**  
Adenocarcinoma, Dunning B-3327-G  
Growth, normal/castrated rat, 3148  
Aromatase  
Enzyme activity, normal/neoplastic breast tissue, 3369  
R3327-G rat prostate adenocarcinoma cells  
Receptors, hormone, 2184  
Obesity  
Cancer predisposition, humans, 3281  
Sex-hormone metabolism, 3281  
Prostatic neoplasms  
Diet, 3864  
Dunning R-3327 rat prostatic adenocarcinoma, 2353  
Hormonal responsiveness, rat, in vivo, 5010  
Receptors, hormone  
Binding, uterus, fetal guinea pig, 1913  
Prostatic tissue, human, 4849  
Temperature effects on assay parameters, 4849

- 6<sup>5</sup>-Androstene-3 $\beta$ ,17 $\beta$ -diol**  
 Aminoglutethimide  
   Breast neoplasms, 4797  
 Hydrocortisone  
   Breast neoplasms, 4797
- Androstenedione**  
 Aromatase, 3307  
 Breast neoplasms  
   Estrogens, 3369  
 Estrogens  
   Biosynthesis, tumor tissue, in vitro, 3338
- Androstenedione, 4-hydroxy-**  
 Antineoplastic agents  
   Mammary neoplasms, 3360  
   Tumor model, rat, 3360  
 Aromatase  
   Enzyme inhibition, 3360  
   Tumor model, rat, 3360
- Anemia, Fanconi's**  
 DNA  
   Alkylating agents, 4000  
   Cross-linking, 4000
- Anesthetics**  
 Peplomycin  
   FM3A mouse mammary carcinoma cells, 4726  
   HeLa cells, 4726
- $\alpha$ -Angelica lactone**  
 Glutathione *S*-transferase  
   Enzyme activity, esophagus/small intestine, mouse, 1205  
 Phenol, (1,1-dimethylethyl)-4-methoxy-  
   DNA adduct formation, stomach-/lung/liver, mouse, in vivo 1199
- Aniline**  
 DNA  
   Alkaline elution assay, 2277  
   Liver/kidney/bone marrow/spleen, rat/mouse, 2277  
 Sister chromatid exchange  
   Liver/kidney/bone marrow/spleen, rat/mouse, 2277
- Anorexia**  
 Carcinosarcoma, Walker 256  
   Cold-stimulated feeding response, rat, 490  
 Chemotherapy  
   Food aversions, 715s  
   Tumor growth, 715s
- Anthracene, 2-amino-**  
 P-450  
   Mutagenic activation, 1722  
   *Salmonella typhimurium*, 1722
- 9,10-Anthracenedicarboxaldehyde**  
 Antineoplastic agents  
   Phase I clinical trial, 354
- 9,10-Anthracenedicarboxaldehyde bis[(4,5-dihydro-1*H*-imidazol-2-yl)hydrazon] dihydrochloride**  
 Antineoplastic agents  
   L1210 leukemia cells  
   L5178Y lymphoma cells, 440  
   Phase I clinical trial, 1170  
   Strand break/cross-link assays 2660  
   Tumor model, mouse, 440  
   Tumor stem cell assay of drug sensitivity, 1170
- Anthracyclines**  
 HL-60 leukemia cells  
   Cell differentiation, 2651  
 Drug resistance  
   Ehrlich ascites tumor cells, 4719  
 Lipids  
   Peroxidation, heart/liver microsomes, rat, 3574  
   Nicotinamide adenine nucleotide phosphate  
     Cardiotoxicity, 3574
- Anthraquinone, dihydroxy-**  
 CHO cells, 3631  
 X-rays  
   Survival, normal rat, 2656
- Anti-thymocyte globulin**  
 see Globulin, anti-thymocyte
- Antibodies**  
 S107 myeloma cells  
   Immune cytotoxicity after drug exposure, 2622
- Antibodies, monoclonal**  
 Aflatoxin B<sub>1</sub>  
   DNA, 3120  
 Antigen, A<sub>1</sub> Lewis  
   Target cell specificity, 409  
 Antigens, fetal  
   Identification of tumors, 267  
   Normal/neoplastic human cells 4532  
 Antigens, histocompatibility  
   M-16 human melanoma cells 4110  
   M-21 human melanoma cells 4110  
   Colo 38 human melanoma cells 4110  
 Antigens, neoplasm  
   Bladder neoplasms, 3084  
   Brain neoplasms, 267  
   Breast neoplasms, 150, 151  
   Cell membrane, 4259  
   M-16 human melanoma cells 4110  
   M-21 human melanoma cells 4110  
   MOLT-4 leukemia cells, 4259
- Antibodies, monoclonal (cont'd)**  
 Chondrosarcoma, 654  
 Colon neoplasms, 150, 151  
 Cytotoxicity, human cell lines 457  
 Diagnostic markers, 3714  
 Distribution in normal/fetal/neoplastic tissues, 583  
 Colo 38 human melanoma cells 4110  
 Glioma, 267  
 Leukemia classification, human 1927  
 Leukemia, lymphoblastic, 457  
 Lung neoplasms, 150, 151  
 B-Lymphocytes, 1927  
 Melanoma, 150, 151, 267  
 Neuroectodermal tumors, 267  
 Ovarian neoplasms, 1650  
 Prostatic neoplasms, 1215, 3084  
 T-lymphocytes, human, 4259  
 Target cell specificity, 409  
 Tumor growth, mouse, in vivo/in vitro, 5209
- Carcinoma**  
 M14 human melanoma cells 3142  
 HPAF human pancreatic tumor cells  
   Antigens, neoplasm, 601  
 Nb2 lymphoma cells  
   Thymocyte origin, 3138  
 Cytochrome P-450  
   Antibody-enzyme reaction, mouse 1798  
 Erythroleukemia  
   Leukemia-cell targeting, mouse, in vivo, 44  
 Glycoproteins  
   Biological markers, placenta human, 2028  
 Lung neoplasms  
   Antigens, neoplasm, 3187  
 Melanoma  
   M14 human melanoma cells 3142  
   Phosphatase, alkaline  
     Phosphatase polymorphism, 2444  
 Prostatic neoplasms  
   Diagnostic markers, 3714  
 Proteins  
   Estrogens, 4256  
 Ricin A  
   Toxicity, rabbit, 457  
   Tumor growth, mouse, in vivo/in vitro, 5209  
 Sarcoma, osteogenic  
   Antigens, neoplasm, 654
- Antibodies, neoplasm**  
 Lung neoplasms  
   Pleural effusions, human, 292  
 Melanoma  
   Complement-dependent microcytotoxicity assay, serum, human, 2216
- $\alpha_1$ -Antichymotrypsin**  
 SEKI human melanoma cells



- $\alpha_1$ -Antichymotrypsin (cont'd)**  
Isolation/characterization, nude mouse, 1549  
Epithelium  
Normal/neoplastic breast tissue, human, 4567
- Antiestrogens**  
MCF-7 breast cancer cells  
Ultrastructural study, 667  
ZR-75 breast cancer cells  
Ultrastructural study, 667
- Antifolates**  
L1210 leukemia cells  
Comparative cell drug sensitivity, 924  
M5076 mouse ovarian tumor cells  
Comparative cell drug sensitivity, 924
- Antigen, A, Lewis**  
Antibodies, monoclonal  
Target cell specificity, 409
- Antigens, adult**  
Leukemia, erythro-  
Cell membrane antigen expression, 4625  
Cell transformation, viral, 4625
- Antigens, carcinoembryonic**  
Meconium/adult feces/tumor tissues, human, 2012  
Serum, cancer patients  
Biological marker/prognosis, 2506
- Antigens, embryonic**  
Antibodies monoclonal  
Identification tumors, 267  
Normal/neoplastic human cells, 4532  
Bone marrow cells  
Normal/neoplastic human cells, 4532  
Immune complexes  
Sera, human, 881  
Leukemia, erythro-  
Cell membrane antigen expression, 4625  
Cell transformation, viral, 4625  
Lymphocytes  
Cytolysis of embryo fibroblasts vs tumor growth inhibition, 784
- Antigens, histocompatibility**  
Antibodies, monoclonal  
M-16 human melanoma cells, 4110  
M-21 human melanoma cells, 4110  
Colo 38 human melanoma cells, 4110  
Antigens, neoplasm  
Flow cytometry, 4110  
Melanoma  
Alabama/sunbelt U.S.A. residents, 4276  
Epidemiology, 4276  
Testicular neoplasms
- Antigens, histocompatibility (cont'd)**  
Analysis/cancer risk, human, 2470
- Antigens, neoplasm**  
Actinomycin  
K-562 leukemia cells, 4694  
Antibodies, monoclonal  
Bladder neoplasms, 3084  
Brain neoplasms, 267  
Breast neoplasms, 150, 151  
Cell membrane, 4259  
M-16 human melanoma cells, 4110  
M-21 human melanoma cells, 4110  
MOLT-4 leukemia cells, 4259  
M-14 human melanoma cells, 3142  
Chondrosarcoma, 654  
Colon neoplasms, 150, 151  
Cytotoxicity, human cell lines, 457  
Diagnostic markers, 3714  
Colo 38 human melanoma cells, 4110  
Identification of tumors, 267  
Leukemia classification, human, 1927  
Leukemia, lymphoblastic, 457  
Lung neoplasms, 150, 151  
B-Lymphocytes, 1927  
Melanoma, 150, 267  
Neuroectodermal tumors, 267  
Ovarian neoplasms, 1650  
Prostatic neoplasms, 1215, 3084  
Sarcoma, osteogenic, 654  
T-lymphocytes, human, 4259  
Target cell specificity, 409  
Tumor growth, mouse, in vivo/in vitro, 5209
- Antigens, histocompatibility**  
Flow cytometry, 4110  
Bladder neoplasms  
Diagnostic markers, urine, 2913  
Butyric acid, sodium salt  
K-562 leukemia cells, 4694  
Carcinoma, oat cell  
Isolation and characterization, 849  
Radioimmunoassay, 849  
HM29 human melanoma cells  
Antigen degradation, in vitro, 2121  
Identification/purification, 2310  
Chromatin  
HT-29 colon adenocarcinoma cells, 594  
LoVo colon carcinoma cells, 594  
Colon neoplasms  
Immunoperoxidase assay, 4820  
Cycloheximide  
K-562 leukemia cells, 4694  
Dimethyldioctadecyl ammonium bromide  
Immune response, human, 4959  
Antibodies monoclonal  
Glioma, 267
- Antigens, neoplasm (cont'd)**  
Glycoproteins  
Serum/ascites fluid, tumor-bearing rats, 2398  
Head and neck neoplasms  
Tumor-specific rosette-forming cells, patients, 2949  
Hepatoma, Novikoff ascites  
Tumor cells of epithelial origin, 1441  
Immune complexes  
Sera, human, 881  
Lung neoplasms  
Antibodies, monoclonal, 3187  
Isolation and purification, 843  
Pleural effusions, human, 292  
T-Lymphocytes  
Cell-mediated cytotoxicity, 3607  
Macrophages  
Breast neoplasms, 4985  
Mammary neoplasms  
Virus, mouse mammary tumor, 4325  
Melanoma  
Antibodies, monoclonal, 151  
Distribution in normal/fetal/neoplastic tissues, 583  
Pancreatic neoplasms  
Distribution, normal/fetal/neoplastic pancreatic tissue, 601  
Proteins, nonhistone  
HeLa cells, 4546  
Rectal neoplasms  
Immunoperoxidase assay, 4820  
Review, 1608  
Sarcoma  
ELISA, 3978  
Sister chromatid exchange  
F2408 rat fibroblast cells, 1909  
Stomach neoplasms  
Case history of patient with *pp* blood, 5249  
Ultraviolet rays  
Fibrosarcoma, 2371
- Antigens, tumor-associated**  
see Antigens, neoplasm
- Antigens, viral**  
LNPL human nasopharyngeal lymphoma cells  
Virus, Epstein-Barr, 1368  
Lymphoma  
Athymic mouse, 198  
Neoplasm transplantation, heterologous, 198  
Mammary neoplasms  
Virus, mouse mammary tumor, 4325  
Virus, avian sarcoma  
Tumor regression, chicken, 1669  
Virus, Feline leukemia  
Alloantisera/alloantigen reaction, 3995  
Leukocytes, cat, 3995  
Virus, Moloney sarcoma  
Animal tumor model, quail, 2523

## Antineoplastic agents

- Abrins
  - Antitumor activity, mouse, 276
  - Cytotoxicity, mouse, in vivo 2152
- Acivicin
  - Phase I clinical trial, 3892
- Aclacinomycin A
  - Friend leukemia cells, 1950
  - Uptake/transport/nuclear incorporation, 1950
- 4'-(9-Acridinylamino)methanesulfon-*m*-aniside
  - Phase II clinical trial, child patient, 1579
- Actinomycin D
  - Radioimmunoassay, dog/human 1184
- Adenine, 9- $\beta$ -D-arabinofuranosyl-2-fluoro-
  - Comparison of two dose schedules, mouse, 2587
  - Enzyme inhibition, 2260
- Adenine, 9- $\beta$ -D-arabinofuranosyl, 5'-triphosphate
  - Enzyme inhibition, 2260
  - Mechanism of cytotoxic action 3637
- Adenosine, 2'-deoxy-
  - Lymphocytes, 3822
- Adriamycin
  - Anti-tumor activity, mouse, 1462
  - Cardiomyopathy, guinea pig, 309
  - Cardiotoxicity, mouse, 4734
  - B16 melanoma cells, 3532
  - CHO cells, 3532, 3631, 3934
  - HT-29 colon carcinoma cells 117
  - P388 mouse leukemia cells, 3583 4730
  - Macrophages, 3851
  - Ovarian neoplasms, 4265
  - Phase I clinical trial i.p. administration, 4265
  - RNA, 79
  - Tumor model, mouse, 440
- Adriamycin, 4'-*O*-tetrahydropyranyl-
  - Anti-tumor activity, mouse, 1462
- Aminogluthethimide
  - Breast neoplasms, 3349, 3397 3409, 3415, 3434, 3437 3445, 3448, 3454, 3458 3461
  - MCF-7 breast cancer cells, 3378
  - Dexamethasone, 3402
  - Hydrocortisone, 3397, 3405 3415, 3434
  - Medroxyprogesterone acetate 3442
  - Tamoxifen, 3409, 3437, 3448 3461
- Androstenedione, 4-hydroxy-
  - Mammary neoplasms, 3360
- Tumor model, rat, 3360
- Anthracenedicarboxaldehyde

## Antineoplastic agents (cont'd)

- L1210 leukemia cells, 2660
- L5178Y lymphoma cells, 440
- Phase I clinical trial, 354, 1170
- Tumor model, mouse, 440
- Anthracyclines
  - Cell differentiation, 2651
  - Ehrlich ascites tumor cells, 4719
  - Lipids, 3574
- Anthraquinone, dihydroxy-CHO cells, 3631
- Aphidicolin
  - Neoplastic human/mouse cells 3810
- Aromatase
  - Aminogluthethimide, 3315
  - Breast neoplasms, 3312
  - Enzyme inhibition, 3312
- Asparaginase
  - Albumin-polymer conjugate 1020
  - Cytosine, 1- $\beta$ -D-arabinofuranosyl 2191
  - Toxicity, mouse, 252
- Aspartic acid, *N*-(phosphonacetyl)-
  - Pharmacokinetics, dog/monkey/rat, 627
- 5-Azacytidine
  - Cytotoxicity, human/mouse cell lines, 2598
- Benzoquinone, aziridinyl-
  - Cerebrospinal fluid levels, 1582
  - Phase I clinical trial, CNS neoplasms, 1582
- Bis(guanyldiazotized)-, 4,4'-diacetyldiphenylurea-
  - Drug synergism, 3592
- Bis(guanyldiazotized)-, methylglyoxal-
  - L1210 leukemia cells, 4072
  - Drug synergism, 3592
- Bleomycin
  - Cleavage of nucleotide sequences 1399
  - Computer analysis of strand breaks, 2779
  - Drug sensitivity, 4026
  - Gonadotrophins, chorionic, 4855
- Caffeine
  - Syrian hamster kidney cells, 4499
- Cain Memorial Award Lecture
  - Recent developments, 3911
- Carbamic acid, diethyldithio-
  - Leukemia L1210, 4490
- 5-Carbamoyl-1*H*-imidazol-4-yl piperonylate
  - Ehrlich carcinoma cells, 1098
  - L1210 leukemia cells, 1103
  - L5178Y mouse leukemia cells 1098
  - P388 mouse leukemia cells, 1103
- 4-Carbamoylimidazolium 5-olate
  - L1210 leukemia cells, 1103
  - P388 mouse leukemia cells, 1103
- Carminomycin
  - Pharmacokinetics, 2944
  - Phase I clinical trial, 2944

## Antineoplastic agents (cont'd)

- CC-1065
  - B16 melanoma cells, 3532
  - CHO cells, 3532
  - Mechanism of action, 999
  - Mechanism of drug-DNA interaction, 2821
- HL-60 leukemia cells
  - Synergistic drug activity, 519
- JB-1 plasmacytoma cells
  - Cell cycle inhibitors, 2420
- L1A<sub>2</sub> murine sarcoma cells
  - Cell cycle inhibitors, 2420
- L1210 leukemia cells
  - Drug resistance vs enzyme activity, 965
  - Drug sensitivity vs resistance 956
  - Synergistic drug activity, 519
- P388 mouse leukemia cells
  - Drug resistance vs enzyme activity, 965
  - Drug sensitivity vs resistance 956
- S107 myeloma cells
  - Antibodies, 2622
- Chemosensitivity
  - Human tumors, 1610
  - Letter to the editor, 1610
- 1,4-Cyclohexadiene-1,4-dicarbamate
  - Tumor model, nude mouse, 812
- Cycloheximide
  - CHO-K1 cells, 4744
- Cyclophosphamide
  - LS174T human colon adenocarcinoma cells, 3676
  - Dose-response study, mouse 1943
  - Immune response, human, 4862
  - Polycyclic aromatic hydrocarbons 3676
- Cytembena
  - HeLa cells, 3193
- Cytosine, 1- $\beta$ -D-arabinofuranosyl-
  - Cell cycle kinetics, mouse, in vivo 3125
  - CHO-K1 cells, 4744
  - KHt sarcoma cells, 3125
  - L1210 leukemia cells, 4050
  - P815 mastocytoma cells, 1537
  - Colony forming unit-cell, spleen 638
  - Cytotoxicity, human/mouse cell lines, 2598
  - DNA-effects/cytotoxicity/chemotherapeutic effects, 3957
  - DNA synthesis, 4050
  - High-dose therapy, 1587
  - Pharmacokinetics, cerebrospinal fluid, monkey, 1736
- Cytosine, 2'-fluoro-5-iodo-1- $\beta$ -D-arabinofuranosyl-
  - DNA-effects/cytotoxicity/chemotherapeutic effects, 3957
- Danazol
  - Breast neoplasms, 3458

## Antineoplastic agents (cont'd)

- Daunorubicin, imino-HT-29 colon carcinoma cells 117
- 2,4-Diamino-6-(2,5-dimethoxybenzyl)-Sarcoma 180 cells, 3987
- Walker 256 cells, 3987
- 1,2,5,6-Dianhydrogalactitol
- Bleomycin, 2894
- Cell cycle kinetics, 2899
- Diethylstilbestrol
- Prostatic neoplasms, 1390
- DNA polymerase  $\alpha$
- Leukemia, lymphoblastic, 649
- Leukemia, myeloblastic, 649
- DNA repair
- Saccharomyces cerevisiae*, 929
- Doxorubicin
- Cardiotoxicity, mouse, 1817
- Liposomes, 1817
- Doxorubicin, 4'-deoxy-
- T343 human colon carcinoma cells, 3793
- T348 human colon carcinoma cells, 3789
- Interferon, 3789
- Estramustine phosphate
- Binding, prostate tissue, human 1935
- Ethyl 5-amino-1,2-dihydro-3-[(*N*-methylamino)methyl]-Cytotoxicity, 791
- Etoposide
- Ehrlich ascites tumor cells, 4719
- Drug synergism, 3648
- Methotrexate, 3648
- Fertility
- Spermatogenesis, mouse, in vivo 122
- Test of 14 agents, 122
- Globulin, anti-thymocyte
- Lymphomas, non-Hodgkins 2465
- Glucocorticoids
- Cell cycle kinetics, 1686
- Fibrosarcoma, 1686
- Guanidine, *N*-methyl-*N*-nitro-*N*-nitroso-
- Melanoma, 1454
- Guanine, 3-deaza-
- L1210 leukemia cells, 4039
- 2-Haloadenosines
- Review, 3911
- Imidazole-4-carboxamide, 5-(3,3-dimethyl-1-triazeno-)
- Melanoma, 1454
- Tumor growth, mouse, 838
- 5-Isoxazoleacetic acid, L-( $\alpha$ , $\delta$ , $\delta$ )- $\alpha$ -amino-
- Phase I clinical trial, 3892
- Lymphoma, Hodgkin's
- Review, 4309
- D-Mannosamine
- Leukemia, T-cell, 2867
- Melphalan

## Antineoplastic agents (cont'd)

- Drug toxicity, 2980
- Mechanism of drug efflux, 987
- Methanesulfonic acid, methyl ester
- Melanoma, 1454
- Methotrexate
- Breast neoplasms, 2081
- L5178Y/Asn-murine leukemic cells, 1641
- MCF-7 breast cancer cells, 5015
- MOLT-3 lymphoblast cells, 1655
- Clinical trial, 3896
- Drug resistance, 1655
- Drug toxicity, human, 4824
- High-dose therapy, case report 1604
- Metabolism, testis, rat, 1617
- Poly- $\gamma$ -glutamyl derivatives, 2532
- Probenecid, 2532
- Prophylactic craniospinal radiation therapy, child, 674
- Purines, 5159
- Sarcoma, osteogenic, 1604
- Uracil, 5-fluoro-, 2081, 3896
- Vincristine, 2532
- Mitomycin C
- Enzyme immunoassay, serum/urine, rat, 1487
- Neocarzinostatin
- PA2 human fibroblast cells, 4584
- Chromosome aberrations, 4584
- DNA repair, 4584
- Peplomycin
- FM3A mouse mammary carcinoma cells, 4726
- HeLa cells, 4726
- Platinum(II), 4'-carboxyphthalato(1,2-diaminocyclohexane)-
- Phase I, clinical trial and pharmacokinetics, 4831
- Platinum(II), diamminedichloro-, *cis*-
- Bladder neoplasms, 807
- Cell membrane, 3565
- Cytotoxicity, 1296
- Escherichia coli*, 2416
- Gonadotrophins, chorionic, 4855
- Intracerebral metastases/primary brain tumors, human, 2059
- Renal toxicity, rat, 945
- Polycytidylic acid
- Liposomes, 1740
- Therapeutic effectiveness, mouse 1740
- Propane, 1,2-bis(3,5-dioxopiperazine-1-yl)
- Prostatic neoplasms, 1390
- Purine, 6-mercapto-
- Urea, 3-[(4-amino-2-methyl-5-pyrimidinyl)methyl]-, 4079
- Pyrimidine, 2,4-diamino-5-adamantyl-6-methyl-
- Toxicity/pharmacokinetics, dog 2177
- Pyrroles
- bis*-Carbamoyloxy methyl derivatives, mouse, 2168

## Antineoplastic agents (cont'd)

- Pyrrrolizines
- bis*-Carbamoyloxy methyl derivatives, mouse, 2168
- Rhabdomyosarcoma
- Tumor model, immunosuppressed mouse, 535
- Ricin
- Cytotoxicity, mouse, in vivo 2152
- N*-Spermidine
- L1210 leukemia cells, 4072
- Derivatives, 4072
- Spirogermanium
- NIL8 hamster ovary cells, 2852
- Human neoplastic cell lines, 2852
- Talisomycin
- Cleavage of nucleotide sequences 1399
- Computer analysis of strand breaks, 2779
- Tamoxifen
- Aminoglutethimide, 3430, 3451
- Breast neoplasms, 3424, 3430, 3434, 3458, 4788
- Review, 3424
- Teniposide
- Drug synergism, 3648
- Methotrexate, 3648
- $\delta$ -Testololactone
- Breast neoplasms, 3387
- Theophylline
- Urea, 1,3-bis(2-chloroethyl)-1-nitroso-, 2742
- Therapeutic drug interaction, in vivo/in vitro, 2191
- 6-Thioguanine
- Urea, 3-[(4-amino-2-methyl-5-pyrimidinyl)methyl]-, 4079
- Thymidine
- 5-Azacytidine, 2'-deoxy-, 519
- Tumor growth vs lethality, mouse 1624
- Thymidylate synthetase
- Chemotherapeutic response indicator, mouse, 450
- Uracil, 5-fluoro-
- Antiproliferative activity, 2412
- MCF-7 breast cancer cells, 5015
- Colon neoplasms, 450
- DNA/RNA binding, in vitro 3005
- Drug toxicity, mouse, 3964
- B-Lymphocytes, 3753
- T-Lymphocytes, 3753
- Thymidine, 2930
- Time-dose relationships, 4413
- Tumor model, mouse, 440
- Urea, 3-[(4-amino-2-methyl-5-pyrimidinyl)methyl]-, 4079
- Uracil, 2-fluoro-5-methylarabinofuranosyl-
- Cytotoxicity, human/mouse cell lines, 2598
- DNA -effects/cytotoxicity/chemotherapeutic effects, 3957

**Antineoplastic agents (cont'd)**

- Urea, 1-(2-chloroethyl)-3-(4-methylcyclohexyl)-1-nitroso-Tumor growth, mouse, 838
- Urea, 1-(2-chloroethyl)-3-(2',3',4'-tri-*O*-acetyl-, Metabolism/distribution agents 525
- Urea, chloroethylnitroso- compounds 9L rat brain tumor cells, 1008
- Ureas, halo ethylnitroso-DNA modification, 4460
- Uridine, 5-bromo-2'-deoxy-Urea, 3-[(4-amino-2-methyl-5-pyrimidinyl)methyl]-, 4079
- Uridine, 5-fluoro-2'-deoxy-Antiproliferative activity, 2412
- DNA/RNA binding, in vitro 3005
- Vinblastine CCRF-CEM leukemia cells, 1384
- HeLa cells, 3798
- Gonadotrophins, chorionic, 4855
- Vincristine HeLa cells, 3798
- P388 mouse leukemia cells, 4730
- X-rays Dose-response study, mouse 1943
- Oxygen, 4921

**Antisera**

- Lung neoplasms
- Immune complex isolation, 292

**Aphidicolin**

- DNA replication
- Neoplastic human/mouse cells 3810
- DNA synthesis
- L1210 leukemia cells, 4050

**Apyrase**

- Blood platelets
- Neoplastic cells, human, 4348

**1-β-D-Arabinofuranosylcytosine**

- see Cytosine, 1-β-D-arabinofuranosyl-

**Arachidonic acid**

- Benzo(a)pyrene, 7,8-dihydroxy-7,8-dihydro-, (+-)-*trans* C3H/10T1/2 mouse embryo cells 2628
- Prostaglandin synthetase, 2628
- Phospholipase A<sub>2</sub> Enzyme activity, skin, mouse 2841
- 12-*O*-Tetradecanoylphorbol-13-acetate, 2841

**Arginine, L-homo-**

- Phosphatase, acid
- MOPC 104E mouse myeloma

**Arginine, L-homo- (cont'd)**

- cells, 1072
- Phosphatase, alkaline
- MOPC 104E mouse myeloma cells, 1072

**Aroclor**

- Acenaphthene, 5-nitro-Metabolites, liver, rat, 1243

**Aromatase**

- Aminoglutethimide
- Antineoplastic agents, 3315
- Enzyme inhibition, 3315, 3353 3378
- Androstenedione, 3307
- Androstenedione, 4-hydroxy-Enzyme inhibition, 3360
- Tumor model, rat, 3360

**Breast neoplasms**

- Biosynthesis, breast tumors, human, 3269
- Enzyme inhibition, in vitro, 3338 3373
- Enzyme inhibition vs therapeutic response, 3365
- Estrogens, 3342, 3382
- Isolation and characterization 3299
- Review, 3268

**MCF-7 breast cancer cells**

- Enzyme inhibition, in vitro, 3378
- Enzyme activity, central nervous system, human, 3274, 3295
- Enzyme inhibition, 3312
- Estrogens, 3307

**Biochemical mechanism of formation, 3277**

- Biosynthesis, human breast, in vitro, 3373
- Biosynthesis, in vivo, 3382
- MD human breast carcinoma cells, 3369
- Enzyme activity, normal/neoplastic breast tissue, 3369
- Phylogenetic overview, 3342
- Review, 3269

**Gonadotrophins, chorionic, 3274****Obesity**

- Cancer predisposition, humans 3281

**Pituitary gland hormones, 3274****Placenta**

- Enzyme inhibition, 3322, 3327 3334
- Isolation and characterization 3299

**Receptors, human**

- Breast neoplasms, 3365

**Δ<sup>1</sup>-Testololactone**

- Breast neoplasms, 3345
- Testosterone, 3307

**Arterial embolization**

- Kidney neoplasms
- Natural killer cells, 3880
- Immune response, patients, 3880

**Aryl hydrocarbon hydroxylase**

- Epithelial cells
- Enzyme distribution, intestine, rat 1283
- Cyclophosphamide
- Urotoxicity, rat, 3688
- Epithelium
- Enzyme distribution, intestine, rat 1283
- Lymphocytes
- Enzyme activity, cryopreserved cells, 5030
- Lung neoplasms, 5030
- 2,3,7,8-Tetrachlorodibenzo-*p*-dioxin
- Metabolism, liver/pancreas, hamster, 5089

**Arylamines**

- DNA synthesis
- Urothelial cells, 3974

**Asbestos**

- 12-*O*-Tetradecanoylphorbol-13-acetate, 3669
- HTE-B hamster tracheal epithelial cells, 3669

**Ascorbate**

- Adriamycin
- Cardiomyopathy, guinea pig, 309
- Leukemia L1210, 309
- Lipid peroxide, 309

**Ascorbic acid**

- see also Vitamin C
- Cell transformation, neoplastic
- C3H/10T1/2 mouse embryo cells 1041
- Dopamine, 6-hydroxy-Bone marrow cell clearance 1331
- Leukemia(s), 1331
- Neuroblastoma, 1331
- Phorbol-12,13-dibutyrate
- Binding, brain cortex, calf, in vitro, 1227
- Rhabdomyosarcoma
- Cytotoxicity, in vitro, 1331

**Asparaginase**

- PANC-1 human pancreatic tumor cells
- Albumin-polymer conjugate 1020
- 6C3HED lymphosarcoma cells
- Albumin-polymer conjugate 1020
- Cytosine, 1-β-D-arabinofuranosyl L5178Y leukemia cells, 2191
- Therapeutic drug interaction, in vivo/in vitro, 2191
- Erwinia carotovora*
- Immunological/pharmacological characterization, 4068
- Poly-DL-alanine peptide modification, 4068
- Immunosuppression
- Toxicity, mouse, 252



- Aspartate transcarbamylase**  
Aspartic acid, *N*-(phosphonacetyl)-  
Pharmacokinetics, dog/monkey/  
rat, 627
- Aspartic acid, *N*-(phosphonacetyl)-**  
Cytosine, 1- $\beta$ -D-arabinofuranosyl-  
Bone marrow cells, 4007  
HL-60 leukemia cells, 4007  
Pyrimidine ribonucleotides  
Leukemia L1210, 4525  
Lung neoplasms, 4525
- Ataxia telangiectasia**  
DNA synthesis  
Carcinogenic agents, 335  
X-rays, 335  
Neocarzinostatin  
Chemosensitivity, 2247  
Oxygen  
Skin fibroblasts, in vitro, 3950  
X-rays  
Skin fibroblasts, in vitro, 3950
- 5-Azacytidine**  
C3H/10T1/2 mouse embryo cells  
817  
V79 Chinese hamster ovary cells  
817  
Leukemia(s)  
Cytotoxicity, human/mouse cell  
lines, 2598  
Nucleoside analogs  
Mutagenicity, 817
- 5-Azacytidine, 2'-deoxy-**  
Thymidine  
HL-60 leukemia cells, 519  
L1210 leukemia cells, 519  
Synergistic drug activity, 519
- Azaserine**  
Acinar cells  
DNA adduct formation, pancreas,  
rat, 1286  
Guanine, 7-carboxymethyl-  
DNA adduct formation, pancreas,  
rat, 1286  
Pancreatic neoplasms  
Tumor model, rat, 19
- Azo dyes**  
Proteins, nonhistone  
Hepatocarcinogenesis, rat, 3164
- Azobenzene, 3'-methyl-4-  
dimethylamino-**  
Butyrylcholinesterase  
Hepatocarcinogenesis, rat, 4158  
Glycosaminoglycans  
Normal fetal/neoplastic liver, rat  
2857  
Proteins  
Carcinogenesis, liver, rat, 4664
- Azomycin riboside**  
Benzylthioinosine, nitro-  
V79 hamster fibroblast cells  
4358  
Radiosensitizers  
V79 hamster fibroblast cells
- Azomycin riboside (cont'd)**  
V79 hamster fibroblast cells  
4358
- B**
- Bacillus Calmette-Guerin***  
Immunotherapy  
Anti-tumor activity, guinea pig  
2544  
Skin neoplasms, 2544
- Barbituric acid, 5-ethyl-5-phenyl-**  
Aldehyde dehydrogenase  
Hepatocarcinogenesis, rat, 577  
Cyclophosphamide  
LS174T human colon adenocar-  
cinoma cells, 3676  
Cytochrome P-450  
Antibody-enzyme reaction, mouse  
1798  
Enzyme activity, kidney/lung/  
liver, rabbit, 1423  
DNA synthesis  
Carcinogenesis, liver, rat, 412
- Benz(a)anthracene**  
Breast cells, human  
Cell-mediated mutagenesis, 4619  
V79 Chinese hamster ovary cells  
Cell-mediated mutagenesis, 4619  
Cyclophosphamide  
LS174T human colon adenocar-  
cinoma cells, 3676
- Benz(a)anthracene, 7,12-dimethyl-**  
Breast cells, human  
Cell-mediated mutagenesis, 4619  
Breast neoplasms  
Tumor growth, rat, 1266  
Cell transformation, neoplastic  
Buccal pouch, hamster, 285  
Epithelial cells  
Ductal dysplasia, 1753  
Mammary glands, mouse, 1753  
 $\gamma$ -Radiation, 1753  
V79 Chinese hamster ovary cells  
Cell-mediated mutagenesis, 4619  
Cytochrome P-450  
Metabolism, adrenal gland, rat  
1479  
Epithelium  
Dose-response study, 4511  
Trachea, rat, in vivo, 4511  
Mammary neoplasms  
Lactation, 1355  
Receptor characteristics, male  
mouse, 2434  
Melanoma  
Tumor model, mouse, 3157  
Selenium, 4954  
Virus, H-1 paro-  
Tumor growth prevention, new-  
born hamster, 2552
- Benzamine, 4,4'-methylenbis(*N,N*-  
dimethyl)-**  
Metabolism, rat, 3475  
*Salmonella typhimurium*
- Benzamine, 4,4'-methylenbis(*N,N*-  
dimethyl)- (cont'd)**  
Mutagenicity, 3475
- Benzidine**  
DNA adduct formation, liver, mouse,  
in vivo  
DNA adduct formation, chemical  
synthesis, 2678
- Benzidine, *N*-acetyl-**  
DNA adduct formation, liver, mouse,  
in vivo  
DNA adduct formation, chemical  
synthesis, 2678
- Benzidine, 3,5,3',5'-tetramethyl-**  
Clinical reagents  
Production of colored product  
2567  
Prostaglandin synthetase, 2567
- Benzo(a)pyrene**  
Breast cells, human  
Cell-mediated mutagenesis, 4619  
Cell transformation, neoplastic  
Syrian hamster embryo cells  
4116  
BALB/3T3 fibroblast cells  
DNA adduct formation, 2644  
Susceptibility of cell variants to  
transformation and killing  
2644  
CVP3SC6 mouse fibroblast cells  
Cell transformation, neoplastic  
2697  
Metabolism, 2697  
C3H/10T1/2 mouse embryo cells  
Carcinogenic mechanism, 2764  
Carcinogenic metabolites, 1866  
Cell transformation, neoplastic  
2697  
DNA, 2764  
Metabolism, 2697  
Dermal fibroblast cells, 1859  
Epidermal cells  
Metabolism, transformed vs un-  
transformed cell lines, 2579  
Epidermal keratinocyte cells, 1859  
Hepa-1c1c7 mouse hepatoma cells  
Nanomolar concentrations, 4473  
V79 Chinese hamster ovary cells  
Cell-mediated mutagenesis, 4619  
V79 Chinese hamster cells, 1859  
Cortisol  
Cell transformation, neoplastic  
4014  
Syrian hamster embryo cells  
4014  
Cyclophosphamide  
LS174T human colon adenocar-  
cinoma cells, 3676  
Cytochrome P-450  
Metabolism, adrenal gland, rat  
1479  
Dexamethasone  
Cell transformation, neoplastic  
4014

**Benzo(a)pyrene (cont'd)**

- Syrian hamster embryo cells  
4014
- DNA
  - Binding, bladder tissue, human/  
rat, 642
- DNA, viral
  - Depurination and mutagenicity  
3480
- Genes, viral
  - AKR mouse embryo cells, 3050
- Glutathione *S*-transferase
  - Microsomes, liver, rat, 4215
- Hepatocytes
  - Human fibroblast cells, 4519
  - DNA-binding/mutagenesis, co-  
cultured liver cells, 4519
- Metabolism, bladder tissue, human/  
rat, 642
- Metabolism, bronchus/colon/  
duodenum/esophagus, human  
934
- Phenol, (1,1-dimethylethyl)-4-  
methoxy-
  - DNA adduct formation, stomach-  
/lung/liver, mouse, in vivo  
1199

**Benzo(a)pyrene, 7,8-dihydroxy-7,8-  
dihydro-, (+)-trans**

- Prostaglandin synthetase  
C3H/10T1/2 mouse embryo cells  
2628
- Oxidase-dependent carcinogen ac-  
tivation, 2628

**Benzo(e)pyrene**

- C3H/10T1/2 mouse embryo cells
- Carcinogenic metabolites, 1866

**Benzo(a)pyrene, fluoro-substituted**

- Skin neoplasms
- Metabolism/tumorigenicity,  
mouse, 4779

**Benzo(a)pyrene hydroxylase**

- Ethanol
  - Hepatic microsomes, rat, 1681
- $\beta$ -Naphthoflavone
  - Alveolar type II cells, 4658
  - Clara cells, 4658

**Benzo(a)pyrene, 7-methyl-**

- C3H/10T1/2 mouse embryo cells
- DNA binding, 4032
- Metabolism, liver microsomes, rat
- DNA binding, 4032

**Benzo(a)pyrene phenol**

- Ethanol
  - Perfused liver, rat, 1681

**Benzo(a)pyrene, 7,8,9,10-tetrahydroxy-  
7,8,9,10-tetrahydro-**

- X-ray crystallography
- Stereochemistry, 3766

**7,8-Benzoflavone**

- Tumor promoters

**7,8-Benzoflavone (cont'd)**

- Carcinogenesis vs initiation-  
promotion, skin, mouse, 3519

**Benzoquinone, aziridinyl-**

- Antineoplastic agents
- Cerebrospinal fluid levels, 1582
- Phase I clinical trial, CNS neo-  
plasms, 1582

**Benzoyl tyrosine ethyl ester**

- Phorbol esters
  - Lymphocyte cap formation, 2115

**Benzylamine, N-methyl-(4-methyl)-N-  
nitroso-**

- Esophageal neoplasms
- Carcinogenic mechanism/  
metabolism, rat, in vivo, 2836

**Benzylamine N-methyl-N-nitroso-**

- Esophageal neoplasms
- Carcinogenic mechanism/  
metabolism, rat, in vivo, 2836

**Benzylamine, N-nitrosomethyl-**

- Metabolism
  - Liver/esophageal microsomes, rat  
3181

**Benzylthioinoside, nitro-**

- Azomycin riboside
- V79 hamster fibroblast cells  
4358

**Beryllium**

- H-35 hepatoma cells
- Carcinogenic mechanism, 473
- Gene expression, 473
- Tyrosine aminotransferase, 473

**BHA**

- see Phenol, (1,1-dimethylethyl)-4-  
methoxy-

**BHT**

- see *p*-Cresol, 2,6-di-tert-butyl

**Bile acids**

- Diethylamine, N-nitroso-
  - Hepatocarcinogenesis, rat, 2426
- $\beta$ -Glucuronidase
  - Enzyme activity, ileum/cecum/  
rectum, rat, 5165
- Lithocholic acid
  - DNA, 2792
- N-Nitrosoglycocholic acid
  - Mutagenicity assay, 2601
- N-Nitrosotaurocholic acid
  - Mutagenicity assay, 2601
- Stomach neoplasms
  - Tumor incidence, W/W genotype  
mouse, 3806

**1,2-Bis(3,5-dioxopiperazine-1-yl)propane**

- see Propane, 1,2-bis(3,5-  
dioxopiperazine-1-yl)

**Bis(guanyldiazotone)-, 4,4'-**

- diacetyldiphenylurea-  
Phenethylbiguanide
- Drug synergism, 3592

**Bis(guanyldiazotone), methyglyoxal-**

- Hyperthermia
- CHO cells, 5046
- L1210 leukemia cells, 4072
- Phenethylbiguanide
- Drug synergism, 3592
- Leukemia L1210, 3592

**P<sup>a</sup>, P<sup>b</sup>-Bis(6-mercaptopurine-9- $\beta$ -D-**

- ribofuranoside-5') pyrophosphate
- L1210 leukemia cells, 3769

**Bisacetamide hexamethylene**

- Dexamethasone
- DS19 Friend erythroleukemia  
cells, 513

**Bisantrone**

- see 9,10-Anthracenedicarboxaldehyde

**Bladder neoplasms**

- Antibodies, monoclonal
- Antigens, neoplasm, 3084
- Antigens, neoplasm
- Diagnostic markers, urine, 2913
- Arylamines
  - DNA synthesis, 3974
- TCC human transitional cells car-  
cinoma
- Growth/culture, serum-free medi-  
um, 2392

**DNA**

- Histograms, tumor diagnosis, hu-  
man, 1094
- Formamide, N-(4-(5-nitro-2-furyl)-2-  
thiazolyl)-
- Carcinogenesis, hyperplastic blad-  
der, rat, in vivo, 65

**Hair dyes**

- Carcinogenic risk, 4784

**Indomethacin**

- Cell-mediated cytotoxicity, mouse  
5038

**Keratin**

- Cell transformation, neoplastic  
4098
- Epithelium, 4098

**Nitrofurans**

- DNA synthesis, 3974

- Platinum(II)diamminedichloride, *cis*-  
Tumor-cloning assay, 807

**RNA**

- Histograms, tumor diagnosis, hu-  
man, 1094

**Saccharin**

- Carcinogenesis, hyperplastic blad-  
der, rat, in vivo, 65

**Transplantation, heterologous**

- Tumor model, mouse, 3696

**L-Tryptophan**

- Enzyme activity, bladder, mouse  
3587

**Urine**

- Carcinogenesis, rat, 15

**Zonulae occludentes**

- Ultrastructural study, rat, 2289

**Blastocyst**

- Carcinoma, germ cell
  - Assay of growth regulation, mouse, 2736
- C1300 neuroblastoma cells
  - Regulation of neoplastic cell growth, 1082
- L1210 leukemia cells
  - Regulation of neoplastic cell growth, 1082
- Sarcoma 180 cells
  - Regulation of neoplastic cell growth, 1082

**Bleomycin**

- Collagen
  - IMR-90 human fetal lung fibroblast cells, 3502
  - Fibrosis, lung, 3502
  - Lung, rat, 405
- 1,2:5,6-Dianhydrogalactitol
  - Cell cycle kinetics, 2894
  - CHO cells, 2894
- DNA
  - Cleavage of nucleotide sequences, 1399
  - Computer analysis of strand breaks, 2779
- DNA repair
  - Saccharomyces cerevisiae*, 929
- DNA synthesis
  - Ataxia telangiectasia, 335
- $\alpha$ -Fetoprotein
  - Germ cell neoplasms, 4855
- Gonadotrophins, chorionic
  - Germ cell neoplasms, 4855
- Proteins
  - DNA adduct formation vs degradation, serum, cancer patients, 1555
  - DNA-binding vs degradation, serum, cancer patients, 1562
- Soft agar
  - Drug sensitivity, 4026

**Bleomycin hydrolase**

- Drug sensitivity, 4026

**Blood circulation**

- Verapamil
  - Mammary neoplasms, 3944
  - Tumor-bearing rat, 3944

**Blood platelets**

- Apyrase
  - Neoplastic cells, human, 4348
- Hirudin
  - Neoplastic cells, human, 4348
- Phospholipase
  - Neoplastic cells, human, 4348

**Bloom's syndrome**

- Chromosome aberrations
- Cancer incidence, 3252

**Bone marrow**

- Cell cycle kinetics
- Cell lines AKR mouse, 2813
- Chlorozotocin
  - L1210 leukemia cells, 2605

**Bone marrow (cont'd)**

- Hyperthermia
  - X-rays, 1261
- Leukemia(s)
  - Purine ribonucleoside monophosphates, 1326
  - Pyrimidine ribonucleoside monophosphates, 1326
- Lung neoplasms
  - Drug toxicity effects, 4270
  - Transplantation, homologous, 4270
- T-Lymphocytes
  - Colony forming unit-spleen cells, 1922
- Mammary neoplasms
  - Tumor growth-induced alterations, mouse, 1255
- Methotrexate
  - Citrovorum factor, 1604
- Sister chromatid exchanges
  - Carbamates, vinyl/allyl, 2165
- Urea, 1-(2-chloroethyl)-3-cyclohexyl-1-nitroso-
  - DNA adduct removal, 2605
- Urea, 1-(2-chloroethyl)-3-( $\beta$ -D-glucopyranosyl)-1-nitroso-
  - DNA adduct removal, 2605

**Bone neoplasms**

- Hyperalimentation
  - Assessment, child, 7135

**Brain neoplasms**

- Alkaline phosphatase
  - Isolation of liver, bone, kidney isoenzymes, 563
- Antibodies monoclonal
  - Antigens, neoplasm, 267
- Combined modality therapy, mouse
  - Tumor model, nude mouse, 812
- Fibronectin
  - Surgical biopsies/cell lines/tumor transplants, 168
- N-Nitrosamines
  - Epidemiological study, child, 5240
  - Prenatal exposure, 5240
- Platinum(II), diamminedichloro-, *cis*-
  - Intracerebral metastases/primary brain tumors, human, 2059
  - Pharmacokinetics, central nervous system, human, 2474
- Protein, glial fibrillary acid
  - Surgical biopsies/cell lines/tumor transplants, 168
- X-rays
  - 1,4-Cyclohexadiene-1,4-dicarbamic acid, 812
  - Procabazine, 812
  - Urea, 1,3-bis(2-chloroethyl)-1-nitroso-, 812

**Breast neoplasms**

- Aminoglutethimide
  - Antineoplastic agents, 3445
- Danazol, 3458
- Dexamethasone, 3402
- Hydrocortisone, 3397, 3405

**Breast neoplasms (cont'd)**

- Hydrocortisone, 3415, 3434, 3454
- Medroxyprogesterone acetate, 3442
- Pharmacokinetics, human, in vivo, 3353
- Steroid hormones, blood/urine, cancer patients, 3349
- Surgical vs pharmacological adrenalectomy, 3389
- Tamoxifen, 3409, 3437, 3448, 3458, 3461
- Therapeutic response in metastatic disease, human, 3402, 3405
- $\delta^5$ -Androstene-3 $\beta$ ,17 $\beta$ -diol
  - Aminoglutethimide, 4797
- Hydrocortisone, 4797
- Antibodies, monoclonal
  - Antigens, neoplasm, 150
- Antineoplastic agents
  - Tamoxifen, 3434
  - $\delta^5$ -Testolactone, 3387
- Aromatase
  - Biosynthesis, breast tumors, human, 3269
  - Enzyme activity, normal/neoplastic breast tissue, 3369
  - Enzyme inhibition, in vitro, 3338, 3373, 3378
  - Enzyme inhibition vs therapeutic response, 3365
  - Estrogens, 3342
  - Isolation and characterization, 3299
  - Receptors, human, 3365
  - Review, 3268, 3269
- Dietary fat
  - Tumor growth, rat, 1266
- Estrogens
  - Androstenedione, 3369
  - Aromatase, 3382
  - Biosynthesis, in vivo, 3382
  - Biosynthesis, tumor tissue, in vitro, 3338
  - Cytoplasm/nucleus, breast tissue, male patient, 4812
  - Mechanism of antiestrogen activity, human, 3420
  - Receptors, hormone, 3338, 3365, 3420, 4443, 4449
- 17-Fluoresceinated estrone
  - Receptor binding assay, 540
- Hormones, sex
  - Review, 3232
- Hydrocortisone
  - Surgical vs medical adrenalectomy, 3454
- Insulin
  - Receptors, hormone, 1137
  - Sera, human, 1137
- Macrophages
  - Antigens, neoplasm, 4985
- Menstrual cycle
  - Risk factors, 3286
- Methotrexate
  - Uracil, 5-fluoro-, 2081



**Breast neoplasms (cont'd)**

- Neoplasm cell heterogeneity
  - Adenosine cyclic 3':5'-monophosphate phosphodiesterase, 1661
  - Microanalysis, 1661
- Obesity
  - Estrone, 3289
- Plasminogens
  - Activator analysis, 219
- Progesterones
  - Cytoplasm/nucleus, breast tissue, male patient, 4812
- Proteins
  - Distribution, normal/neoplastic tissue, human, 4763
- Receptors, hormone
  - Cytoplasm/nucleus, breast tissue, male patient, 4812
  - DNA synthesis, 359
- Tamoxifen
  - Aminoglutethimide, 3430, 3451
  - Oophorectomy, 4788
  - Review, 3424
- $\delta^1$ -Testololactone
  - Aromatase, 3345
- Thymosin Fraction V
  - Tumor growth, rat, 1266
- Thymus gland
  - Tumor growth, rat, 1266

**Bromocriptine mesylate**

- Mammary neoplasms
  - Hypophysectomized rat, 35

**p-Bromophenacyl bromide**

- Phospholipase A<sub>2</sub>
  - Enzyme activity, skin, mouse 2841
  - 12-O-Tetradecanoylphorbol-13-acetate, 2841

**Burkitt's lymphoma**

- Phenylalanine mustard
  - DNA, 897
  - Interstrand cross-linking vs cytotoxicity, 897
- Platinum(II)diamminedichloride, *cis*-DNA, 897
  - Interstrand cross-linking vs cytotoxicity, 897

**1-Butanol**

- Metastases
  - Cell membrane, 2126

**2-tert-Butyl-4-hydroxyanisole**

- Glutathione S-transferase
  - Enzyme activity, esophagus/small intestine, mouse, 1205

**Butyric acid, sodium salt**

- Antigens, neoplasm
  - K-562 leukemia cells, 4694
- HRT-18 rectal adenocarcinoma cells
  - Cell differentiation, neoplastic 1052
- Phosphatase, alkaline
  - HRT-18 rectal adenocarcinoma cells, 4540

**Butyrylcholinesterase**

- Azobenzene, 3'-methyl-4-dimethylamino-
  - Hepatocarcinogenesis, rat, 4158

**C****Cachexia**

- Amino acid, 4293
- Amino acids
  - Protein kinetics, rat, 824
- Fatty acid, 4293
- Glucose
  - Metabolism, cancer patient, 4293
- Hyperalimentation
  - Metabolism, child cancer patient 727s
- Insulin
  - Tumor-bearing rat, 3642
- Lung neoplasms
  - Metabolism, male patients, 4815
- Nutrition
  - Growth, 721s
  - Muscle wasting, 721s
- Oxygen
  - Metabolism, cancer patient, 4293
- Proteins
  - Muscles, cancer patient, 4807

**Caffeine**

- Cycloheximide, 4499
- Ultraviolet rays
  - Syrian hamster kidney cells, 4499

**Cain Memorial Award Lecture**

- Antineoplastic agents
  - Recent developments, 3911

**Calcitonin**

- Receptors, vitamin
  - Neoplastic cells, human, 1116

**Calcium**

- Adenosine cyclic 3':5'-monophosphate
  - McA-RH 8994 rat hepatoma cells 3116
- Adriamycin
  - P388 mouse leukemia cells, 4730
- $\alpha$ -Aminoisobutyrate
  - McA-RH 8994 rat hepatoma cells 3116
- Calmodulin
  - Normal/regenerating/neoplastic liver, rat, 2571
- Glucagon
  - McA-RH 8994 rat hepatoma cells 3116
- Vincristine
  - P388 mouse leukemia cells, 4730
- Calcium ionophore A 23187
  - 12-O-Tetradecanoylphorbol-13-acetate
    - Dorsal skin, golden hamster 2034

**Calmodulin**

- Adriamycin, 4730
- Calcium

**Calmodulin (cont'd)**

- Normal/regenerating/neoplastic liver, rat, 2571
- Magnesium
  - Normal/regenerating/neoplastic liver, rat, 2571
- Phorbol esters
  - Lymphocyte cap formation, 2115
- Tumor cell growth regulation
  - Normal/regenerating/neoplastic liver, rat, 2571
- Vincristine
  - P388 mouse leukemia cells, 4730

**Carbamates, vinyl/allyl**

- Sister chromatid exchanges
  - Bone marrow, 2165
  - Macrophages, 2165
- Regenerating liver cells, mouse 2165

**Carbamic acid, diethyldithio-**

- Cyclophosphamide
  - Leukemia L1210, 4490
- Disulfiram
  - Bladder toxicity, mouse, 4490

**5-Carbamoyl-1H-imidazol-4-yl piperonylate**

- Adenine phosphoribosyltransferase 1098
- Inosine 5'-monophosphate dehydrogenase, 1098
- Purines
  - Ehrlich carcinoma cells, 1098
  - L1210 leukemia cells, 1103
  - L5178Y mouse leukemia cells 1098
  - P388 mouse leukemia cells, 1103

**4-Carbamoylimidazolium 5-olate**

- Adenine phosphoribosyltransferase
  - FM3A mouse mammary cells 4210
- Cytotoxicity, mechanism, 4210
- Purines
  - Ehrlich carcinoma cells, 1098
  - L1210 leukemia cells, 1103
  - L5178Y mouse leukemia cells 1098
  - P388 mouse leukemia cells, 1103

**Carbidopa**

- Dietary amino acids
  - Tumor growth, mouse, 3056

**Carbohydrates**

- Anti-tumor effects
  - Review, 756s
- Cachexia
  - Metabolism, cancer patients 721s
- Colonic neoplasms, 1176

**Carboxyl-O-methyltransferase**

- Neuroblastoma
  - Enzyme characterization, mouse, in vivo, 4433

- Carcinoembryonic antigens**  
see Antigens, carcinoembryonic
- Carcinogen screening**  
DNA synthesis  
Hepatocytes, 3010
- Carcinogens**  
RNA  
Liver, rat, 3228
- Carcinoid tumor**  
Histamine, 1513  
Indoleacetic acid, 5-hydroxy-, 1513  
Serotonin  
Cell culture, 1513
- Carcinoma**  
Antibodies, monoclonal  
M14 human melanoma cells  
3142  
Phosphatase, alkaline  
Enzyme activity, non-neoplastic  
tissue, rat, 2146
- Carcinoma, acinar**  
Pancreatic neoplasms  
Cell separation/characterization  
3729
- Carcinoma, Ehrlich ascites**  
Lipoproteins, VLD  
Metabolism, rat, in vivo, 132
- Carcinoma, embryonal**  
see Germ cell neoplasms
- Carcinoma, epidermoid**  
Epithelium  
Cell migration, 4248  
Phase/reflection microscopy, time  
lapse cinematography, 4248  
γ-Glutamyl transpeptidase  
Buccal pouch, hamster, 285  
Cell transformation, neoplastic  
285  
Head and neck neoplasms  
Immunity, cellular, 2949  
Tumor-specific rosette-forming  
cells, patients, 2949
- Carcinoma, oat cell**  
Antigens, neoplasm  
Isolation and characterization  
849  
Isolation and purification, 843  
Radioimmunoassay, 849  
Bone marrow  
Transplantation, homologous  
4270  
Cell cycle kinetics, human  
Chemotherapy monitoring, 2499  
α-Ornithine, difluoromethyl-  
Growth inhibition, in vitro, 3070  
Polyamines, 3070
- Carcinoma, small cell**  
see Carcinoma, oat cell
- Carcinoma, squamous**  
see Carcinoma, epidermoid
- Carcinoma, Vx-2**  
Oxygen  
Enzyme activity, tumor-bearing  
rabbit, 4233
- Carcinosarcoma, Walker 256**  
Anorexia  
Cold-stimulated feeding response,  
rat, 490  
Energy production  
Tissue isolated neoplasms, rat  
4090
- Carminomycin**  
Antineoplastic agents  
Pharmacokinetics, 2944  
Phase I clinical trial, 2944
- α-Carrageenan**  
Hypersensitivity, delayed  
Immunosupplementation agents  
3514
- Casein**  
Aflatoxin B<sub>1</sub>  
Binding, liver rat, male vs female  
5053  
Mammary neoplasms  
RNA, messenger, 1355
- Catalase**  
Oxygen  
Normal/neoplastic cells; normal  
tissues, human, 1955
- Cathepsin B**  
Melanoma  
Metastases, 980  
Proteinase  
Mammary neoplasms, 1026
- CC-1065**  
B16 melanoma cells, 3532  
CHO cells, 3532  
L1210 leukemia cells  
Mechanism of action, 999  
DNA  
Mechanism of drug-DNA interac-  
tion, 2821
- Cell adhesion**  
CHEF/18 diploid Chinese hamster  
embryo fibroblast cells  
Anchorage independence vs  
tumorigenicity, 389  
Fibrosarcoma cells  
Phorbol myristate acetate, 190  
Syrian hamster embryo cells  
Qualitative/quantitative assay  
3132  
Walker 256 carcinosarcoma cells  
Phorbol myristate acetate, 190  
Guanidine, N-methyl-N'-nitro-N-  
nitroso-  
CAK pseudodiploid mouse cells  
4054  
Leukemia, hairy cell  
Phorbol esters, 3724  
Mammary neoplasms  
Mammary tumor factor, 5117
- Cell differentiation**  
Adenosine cyclic 3':5'-  
monophosphate  
HL-60 leukemia cells, 3928  
U-937 human histiocytic lym-  
phoma cells, 3924, 3928  
Bisacetamide hexamethylene  
DS19 Friend erythroleukemia  
cells, 513  
Dexamethasone, 513  
C3H/10T1/2 mouse embryo cells  
5-Azacytidine, 817  
Epithelial cells  
Breast milk, human, 2040  
Ecto- and endocervical uterine tis-  
sue, 1142  
V79 Chinese hamster ovary cells  
5-Azacytidine, 817  
3041 mouse adenocarcinoma cells  
Pathological/physiological proper-  
ties, 1881  
1-β-D-Arabinofuranosylcytosine  
ML-1 human leukemia cells  
5152  
Dimethyl sulfoxide  
HL-60 leukemia cells, 445, 4421  
ML-1 human leukemia cells  
5152  
Glycoproteins, 5222  
DNA ligase  
MEL mouse erythroleukemia cells  
1300  
DNAase  
MEL mouse erythroleukemia cells  
1300  
Formamide, N,N-dimethyl-  
DLD-1 human colon carcinoma  
cells, 30  
Gamma-rays  
SCC-OH-1 human lung car-  
cinoma cells, 1361  
Glycopeptides  
HL-60 leukemia cells, 484  
Glycoproteins  
12-O-Tetradecanoylphorbol-13-  
acetate, 5222  
Lipopolysaccharide  
M5076 mouse reticulum sarcoma  
cells, 1850  
Tumor behavior in vivo vs in vi-  
tro, 1850  
Marcellomycin  
HL-60 leukemia cells, 2651  
Phorbol esters  
HL-60 leukemia cells, 484  
Phosphatase, acid  
MEL mouse erythroleukemia cells  
1300  
Polyamines  
Granulocyte-macrophage colony-  
forming cells, 3046  
Retinoic acid  
HL-60 leukemia cells, 3928  
4421  
U-937 human histiocytic lym-  
phoma cells, 3924, 3928  
Teratoma

**Cell differentiation (cont'd)**

- Acetamide, dimethyl-, 1843
- Retinoic acid, 1843
- 12-*O*-Tetradecanoylphorbol-13-acetate
  - CM-S human hematopoietic cells 4182
  - HL-60 leukemia cells, 1530
  - ML-1 human leukemia cells 5152
  - M5076 mouse reticulum sarcoma cells, 1850
  - HPB-ALL T-lymphoblast cells 3843
  - THP-1 human leukemia cells 1530
  - Tumor behavior in vivo vs in vitro, 1850
- Vimetin
  - HL-60 human leukemia cells 5106
  - U-937 human leukemia cells 5106
- Vitamin A
  - HL-60 leukemia cells, 3928
  - U-937 human histiocytic lymphoma cells, 3928

**Cell hybrids**

- Karyotyping, 3971
- B-Lymphocytes
  - M10 melanoma cells, 3971

**Cell membrane**

- Antibodies, monoclonal
  - Antigens, neoplasm, 4259
- L1210 leukemia cells
  - Electron spin resonance analysis 2715
- Glycopeptides
  - Normal/transformed/neoplastic epithelial/mesenchyme kidney cells, 39
- Hyperthermia
  - Lipids, 1716
- Leukemia, erythroblastic
  - Cell transformation, neoplastic 2884
  - Glycoproteins, 2884
  - Sugar chains, 2884
- Leukemia L1210
  - Neuraminidase, 4263
- Melanoma
  - Surface macromolecules and autotabolism, 2232
- Metastases
  - 1-Butanol extraction, 2126
  - B16-F1 melanoma cells, 2126
  - MCA-F sarcoma cells, 2126
- Nuclear magnetic resonance
  - Normal/neoplastic/transformed lymphocytes, 2270
- Platinum(II),diamminedichloro-, *cis*-
  - Nucleic acids, 3565
- Proteins
  - Dunning prostate adenocarcinoma, R3327, 2748
  - Gel electrophoresis of normal/

**Cell membrane (cont'd)**

- neoplastic prostate tissue, rat 2748
- trans*-Retinol
  - Anti-carcinogenesis mechanism, rat, 2450

**Cell membrane markers**

- Cell transformation, neoplastic
- Alloantigens, 227

**Cell migration**

- Epithelium
  - Carcinoma, epidermoid, 4248
- Lymphokines
  - P815 mastocytoma cells, 2135
  - Macrophages, 2135

**Cell mutation**

- 5-Azacytidine
  - Nucleoside analogs, 817

**Cell nucleus**

- Nickel carbonate
  - DNA, 3544
  - Single-strand breaks/interstrand cross-links, 3544
- Receptors, hormone
  - Breast neoplasms, 4443
  - Estrogens, 4443, 4449
  - Myometrial tissue, human, 4443
- 12-*O*-Tetradecanoylphorbol-13-acetate
  - Epidermis, mouse, 3496

**Cell transformation, neoplastic**

- Alloantigens
  - Cell membrane markers, 227
  - Genotypic mosaic liver, rat, 227
  - Hepatocarcinogenesis, rat, 227
- BALB/c 3T3 proadipocytes
  - Cell cycle kinetics, 5139
- Benzo(a)pyrene
  - Carcinogenic metabolites, 1866
  - BALB/3T3 fibroblast cells, 2644
  - CVP3SC6 mouse fibroblast cells 2697
  - C3H/10T1/2 mouse embryo cells 2697
- Butyric acid, sodium salt
  - HRT-18 rectal adenocarcinoma cells, 1052
- CHEF/18 diploid Chinese hamster embryo fibroblast cells
  - Anchorage independence vs tumorigenicity, 389
  - Serum requirements vs tumorigenicity, 389
- C3H/10T1/2 mouse embryo cells
  - Ascorbic acid, 1041
- SV3T3 fibroblast cells
  - Cell cycle kinetics, 5139
- Syrian hamster embryo cells
  - Benzo(a)pyrene, 4116
  - Epithelium, 4116
  - Guanidine, *N*-methyl-*N'*-nitro-*N'*-nitroso-, 4116
  - Qualitative/quantitative assay 3132
  - Virus, SV40, 4116

**Cell transformation, neoplastic (cont'd)**

- Cortisol
  - Benzo(a)pyrene, 4014
- Cytochalasin B
  - Multinucleation of cells, 2575
- Dexamethasone
  - Benzo(a)pyrene, 4014
- Diethylstilbestrol
  - Syrian hamster embryo fibroblast cells, 3040
  - Related compounds, 3040
- Dimethyl sulfoxide
  - HRT-18 rectal adenocarcinoma cells, 1052
- DNA, viral
  - AKR-MCA mouse embryo cells 569
  - AKR-2B mouse embryo cells 569
  - C3H/MCA-58 mouse embryo cells, 569
  - C3H/10T1/2 mouse embryo cells 569
  - Virus, AKR-murine leukemia 569
- Epidermal growth factor
  - AKR-MCA mouse embryo cells 2633
  - C3H/MCA-58 cells, 2633
  - SV3T3 fibroblast cells, 4776
- Epithelium
  - Actin, 4591
  - Filaments, 4591
  - Microtubules, 4591
- 17 $\beta$ -Estradiol
  - MCF-7 breast cancer cells, 667
  - ZR-75 breast cancer cells, 667
- Glucose transport
  - BALB/c 3T3 A31 fibroblast cells 1809
- $\gamma$ -Glutamyl transpeptidase
  - Buccal pouch, hamster, 285
  - Carcinoma, epidermoid, 285
- Glycolysis, aerobic
  - BALB/c 3T3 A31 fibroblast cells 1809
- Glycopeptides
  - TRKM transformed rat kidney cells, 39
- Glycosaminoglycans
  - WAZ-2T mammary adenocarcinoma cells, 2207
- Guanidine, *N*-methyl-*N'*-nitro-*N'*-nitroso-
  - Adenosine cyclic 3':5'-monophosphate, 1274
  - CAK pseudodiploid mouse cells 4054
  - Guanosine cyclic 3':5'-monophosphate, 1274
- Guanine, *O*'-methyl-
  - Regenerating liver, rat, 3814
- Hepatoma
  - DNA adduct formation, 2462
  - Meeting report, 2462



- Cell transformation, neoplastic (cont'd)**  
 Normal/neoplastic liver cell culture, 2462  
 Hydrazine, 1,2-dimethyl-  
 Carcinogenesis, liver, rat, in vivo 876  
 Cell cycle, 876  
 Keratin  
 Carcinogenesis, bladder, mouse 4098  
 Leukemia, erythroblastic  
 Cell membrane, 2884  
 Lymphoma, Hodgkin's  
 RNA, transfer, 3887  
 Nuclear magnetic resonance  
 Normal/neoplastic/transformed lymphocytes, 2270  
 Phagocytosis  
 Syrian hamster ovary cells, 2757  
 Phorbol-12,13-didecanoate  
 Syrian hamster embryo cells 1233  
 Prostatic neoplasms  
 Karyotyping, prostate gland, rat 4131  
 Proteins, nonhistone  
 Hepatocarcinogenesis, rat, 3164  
 Retinoic acid  
 HRT-18 rectal adenocarcinoma cells, 1052  
 RNA  
 Normal colon/liver/kidney vs neoplastic colon, mouse, 1088  
 12-*O*-Tetradecanoylphorbol-13-acetate  
 C3H/10T1/2 mouse embryo cells 477  
 Syrian hamster embryo cells 1233  
 Fibroblasts, high-risk cancer persons, 3870  
 Transforming growth factor  
 SV3T3 fibroblast cells, 4776  
 Transplantation, heterologous  
 HFP human fetal pituitary cells 2336  
*Xiphophorus*  
 Virus, Rous sarcoma, 4222
- Cell transformation, viral**  
 Antigens, adult  
 Leukemia, erythro-, 4625  
 Antigens, fetal  
 Leukemia, erythro-, 4625  
 Antigens, neoplasm  
 F2408 rat fibroblast cells, 1909  
 Sister chromatid exchange, 1909  
 CREF Fischer rat embryo cells  
 Telocidin, 2829  
 12-*O*-Tetradecanoylphorbol-13-acetate, 2829  
 Epithelial cells  
 Breast milk, human, 2040  
 FRT-L rat thyroid cells  
 Biochemical markers, 618  
 LSH hamster embryo cells
- Cell transformation, viral (cont'd)**  
 Tumorigenicity of transformed cells, 939  
 SV3T3 fibroblast cells  
 Amino acids, 4690  
 Growth rate vs cell density, 4690  
 T-79 rat thyroid cells  
 Biochemical markers, 618  
 WI-38 fibroblast cells  
 Fucose, 3022  
 Glycoproteins  
 Epithelial cells, 1147  
 Imidazoles  
 3Y1-B rat cells, 280  
 Growth of transformed vs untransformed cells, 280  
 12-*O*-Tetradecanoylphorbol acetate  
 Keratinocytes, 4600  
 12-*O*-Tetradecanoylphorbol-13-acetate  
 MMC-E mouse embryo epithelial cells, 2407  
 Tumor growth factor  
 HEF hamster embryo fibroblast cells, 2350  
 Virus, reticuloendotheliosis  
 Chick spleen cells, 2722
- A-204 human rhabdomyosarcoma cells**  
 Lipoproteins, high density  
 Cell growth, 3704
- A 375 human melanoma cells**  
 Methanesulphonic acid, methyl ester  
 DNA repair, 84  
 Ultraviolet rays  
 DNA repair, 84
- A-431 human carcinoma cells**  
 Lipoproteins, high density  
 Cell growth, 3704
- Acinar cells**  
 Azaserine  
 DNA adduct formation, pancreas, rat, 1286
- AKR bone marrow cells**  
 Urea, 1,3-bis(2-chloroethyl)-1-nitroso-  
 Cell cycle kinetics, 2816  
 Sister chromatid exchanges, 2816
- AKR lymphoma cells**  
 Sister chromatid exchanges  
 Cell cycle kinetics, 2813, 2816  
 Urea, 1,3-bis(2-chloroethyl)-1-nitroso-  
 Cell cycle kinetics, 2813, 2816
- AKR-MCA mouse embryo cells**  
 Cell transformation, neoplastic  
 DNA, viral, 569  
 Epidermal growth factor  
 Binding vs phase of cell cycle 2633  
 Cell transformation, neoplastic
- AKR-MCA mouse embryo cells (cont'd)**  
 Cell transformation, neoplastic 2633
- AKR mouse embryo cells**  
 Alkylating agents  
 Genes, viral, 3050  
 Benzo(a)pyrene  
 Genes, viral, 3050  
 Uridine, 5-iododeoxy  
 Genes, viral, 3050  
 Virus, retro-  
 Genes, viral, 3050
- AKR-2B mouse embryo cells**  
 Cell transformation, neoplastic  
 DNA, viral, 569
- ALL leukemia cells**  
 D-Mannosamine  
 Oleate, sodium, 2867
- Alveolar type II cells**  
 $\beta$ -Naphthoflavone  
 Benzo(a)pyrene hydroxylase 4658
- A101D melanoma cells**  
 Cytochalasin B  
 Multinucleation of cells, 2575
- A498 kidney carcinoma cells**  
 Cytochalasin B  
 Multinucleation of cells, 2575
- A549 lung carcinoma cells**  
 Vitamin D3, 1,25-dihydroxy-, 856
- BALB/c fibroblast cells**  
 T-Lymphocytes  
 Cytotoxicity, sponge matrix cells 397
- BALB/c thymic lymphoma cells**  
 T-Lymphocytes  
 Cytotoxicity, sponge matrix cells 397
- BALB/c 3T3 fibroblast cells**  
 Cell transformation, neoplastic  
 Cell cycle kinetics, 5139  
 Glucose transport, 1809  
 Glycolysis, aerobic, 1809  
 Magnesium  
 DNA synthesis, 1761
- BALB/3T3 fibroblast cells**  
 Benzo(a)pyrene  
 DNA adduct formation, 2644  
 Susceptibility of cell variants to transformation and killing 2644  
 Hematoporphyrin derivative  
 In vitro cellular effects, 2325
- BALL 1 leukemia cells**  
 Interferon, 1312
- BE human colon neoplasm cells**  
 Urea, 1-(2-chloroethyl)-3-(4-methylcyclohexyl)-1-nitroso-  
 Uracil, 5-fluoro-, 5172

**BF human lymphoblastoid cells**

Melphalan  
IgG, 4505

**BHK cells**

see Syrian hamster kidney cells

**Bone marrow cells**

Aspartic acid, *N*-(phosphonacetyl)-  
Cytosine, 1- $\beta$ -D-arabinofuranosyl-  
4007  
Leukemia, myelocytic  
Sister chromatid exchanges, 3240  
Methanesulphonic acid, methyl ester  
DNA repair, 84  
Methapyrilene  
Sister chromatid exchanges, 4614  
Serine protease  
Tumor-induced cytotoxicity, 207  
Ultraviolet rays  
DNA repair, 84

**Breast cells, human**

Benz(a)anthracene  
Cell-mediated mutagenesis, 4619  
Benz(a)anthracene, 7,12-dimethyl-  
Cell-mediated mutagenesis, 4619  
Benzo(a)pyrene  
Cell-mediated mutagenesis, 4619  
Microtubules  
Proton relaxation, 4124

**B16-F1 melanoma cells**

Cell membrane  
Metastases, 2126

**B16 melanoma cells**

Adriamycin, 3532  
CC-1065, 3532  
Fibronectin  
Metastases, 2265  
Glucosamine  
Melanogenesis, 1994  
Interferon  
Mechanisms of anticellular activity, 869  
Laminin  
Metastases, 2265  
Metastases  
Brain meninges colonization,  
mouse, 4631  
Cultured cells/skin neoplasms/  
lung metastases, mouse, 2770  
Neoplasm cell heterogeneity  
2770  
Theophylline  
Melanocyte-stimulating hormone  
2786  
 $\alpha$ -Tocopherol  
Growth inhibition vs morphological alterations, 550  
Tunicamycin  
Melanogenesis, 1994  
Virus, retro-  
Virus production vs tumor immunity, beige mouse, 2562

**C-6 glioma cells**

Deceleratory growth, in vitro  
Population density of cells, 1636

**CAK pseudodiploid mouse cells**

Guanidine, *N*-methyl-*N'*-nitro-*N*-  
nitroso-  
Cell adhesion, 4054  
Cell transformation, neoplastic  
4054

**CAMA-1 human breast cancer cells**

Estrogens  
Tumor model, in vitro, 5060  
Prolactin  
Tumor model, in vitro, 5060

**CCL 53.1 human melanoma cells**

Vitamin D3, 1,25-dihydroxy-, 856

**CCRF-CEM leukemia cells**

Methotrexate  
Purines, 5159  
Tetrahydrofolate, 5-formyl-, 502  
Tetrahydrofolate, 5-methyl-, 502  
Pronase  
Vinca alkaloid drug resistance  
184  
Tunicamycin  
Vinca alkaloid drug resistance  
184  
Vinblastine  
Actin, 1384  
Tubulin, 1384

**CCRF-HSB-2 leukemia cells**

Interferon, 1312

**CEM-C7 human leukemia cells**

Deacylcortivazol  
Non-receptor mediated effects  
2110  
Receptors, hormone, 2110

**CEM lymphoblastoid cells**

Interferon  
Cytotoxicity of cells from cancer patients, 2480  
Natural killer cells, 2480

**CGP human carcinoid tumor cells**

Cell culture, 1513

**CHEF/18 diploid Chinese hamster embryo fibroblast cells**

Cell transformation, neoplastic  
Anchorage independence vs tumorigenicity, 389  
Serum requirements vs tumorigenicity, 389

**Chick spleen cells**

Virus, reticuloendotheliosis  
Cell transformation, viral, 2722

**CHO cells**

Adenine, 9- $\beta$ -D-arabinofuranosyl-  
S-Adenosyl-L-homocysteine hydrolase, 4991  
Adenosine, 2'-deoxy  
S-Adenosyl-L-homocysteine hydrolase, 4991  
Adriamycin, 3532, 3631  
2,4-Dinitrophenol, 3934  
D-Glucose, 2-deoxy-, 3934

**CHO cells (cont'd)**

Anthraquinone, dihydroxy-, 3631  
Bis(guanyldiazotization), methyglyoxal-  
Hyperthermia, 5046  
CC-1065, 3532  
1,2,5,6-Dianhydrogalactitol  
Bleomycin, 2894  
Hyperthermia  
Cytotoxicity mechanism, 1059  
Methapyrilene  
Sister chromatid exchanges, 4614  
Mitomycin C  
DNA repair, 3106  
Ornithine,  $\alpha$ -difluoromethyl-  
Hyperthermia, 5046  
Phagocytosis  
Nickel sulfide, 2729  
Platinum II,diamminedichloro-, *cis*-  
DNA repair, 3106  
Rhodamine 123, 799  
Thermotolerance  
DNA degradation, 4427  
Video microscopy  
Nickel sulfide, 2729  
Zinc  
Melphalan, 2980

**CHO-K1 cells**

Cycloheximide  
DNA replication, 4744  
Cytosine, 1- $\beta$ -D-arabinofuranosyl-  
DNA replication, 4744

**Clara cells**

$\beta$ -Naphthoflavone  
Benzo(a)pyrene hydroxylase  
4658

**CL1 human breast carcinoma cells**

Pyrroles  
*bis*-Carbamoyloxy methyl derivatives, mouse, 2168  
Pyrrolizines  
*bis*-Carbamoyloxy methyl derivatives, mouse, 2168

**CM-S human hematopoietic cells**

Cell differentiation  
12-*O*-Tetradecanoylphorbol-13-  
acetate, 4182

**CO 284/285 normal rat kidney cells**

Glycopeptides  
Cell membrane, 39

**Colo 38 human melanoma cells**

Antigens, histocompatibility  
Antibodies, monoclonal, 4110  
Antigens, neoplasm  
Antibodies, monoclonal, 4110

**Colony forming cells**

T-Lymphocytes  
Bone marrow, 1922  
EMT-6 mouse mammary tumor cells, 1922  
Melanoma  
Metastases, 4606  
Self-renewal capacities, 4606

- CREF Fischer rat embryo cells**  
Cell transformation, viral  
Telocidin, 2829  
12-*O*-Tetradecanoylphorbol-13-acetate, 2829
- CRL 1187 human fibroblast cells**  
DNA repair  
Cytosine, 1- $\beta$ -D-arabinofuranosyl-145  
DNA-protein cross-linking agents 145  
Formaldehyde, 145  
Platinum(II)diamminedichloride, *trans*-, 145  
Potassium chromate, 145  
Urea, hydroxy-, 145
- CVP3SC6 mouse fibroblast cells**  
Benzo(a)pyrene  
Cell transformation, neoplastic 2697  
Metabolism, 2697
- C1-S1 mouse lung tumor cells**  
Glycosaminoglycans  
Culture conditions, 4975  
Heparan sulfate, 4975
- C1300 neuroblastoma cells**  
Blastocyst  
Regulation of neoplastic cell growth, 1082
- C3H/MCA-58 mouse embryo cells**  
Cell transformation, neoplastic  
DNA, viral, 569  
Epidermal growth factor  
Binding vs phase of cell cycle 2633  
Cell transformation, neoplastic 2633
- C3H mouse fibrosarcoma cells**  
Fibronectin  
Metastases, 2265  
Laminin  
Metastases, 2265
- C3H/10T1/2 mouse embryo cells**  
5-Azacytidine, 817  
Benzo(a)pyrene  
Carcinogenic mechanism, 2764  
Carcinogenic metabolites, 1866  
Cell transformation, neoplastic 2697  
DNA, 2764  
Metabolism, 2697  
Benzo(a)pyrene, 7-methyl-  
DNA binding, 4032  
Benzo(e)pyrene  
Carcinogenic metabolites, 1866  
Cell transformation, neoplastic  
Ascorbic acid, 1041  
DNA, viral, 569  
12-*O*-Tetradecanoylphorbol-13-acetate  
Neutrons, 477  
X-rays, 477
- C3H/10T1/2 mouse embryo cells (cont'd)**  
Praziquantel  
Acridine, 2-methoxy-6-chloro-9-[3-(2-chloroethyl)aminopropylamino]-, 2692  
Guanidine, *N*-methyl-*N*-nitro-*N*-nitroso-, 2692  
Prostaglandin synthetase  
Benzo(a)pyrene, 7,8-dihydroxy-7,8-dihydro-, (+-)-*trans*, 2628
- C57BL/6 thymic lymphoma cells**  
T-Lymphocytes  
Cytotoxicity, sponge matrix cells 397
- Daudi leukemia cells**  
Cytosine, 1- $\beta$ -D-arabinofuranosyl, 5'-triphosphate  
Growth inhibition vs dephosphorylation, 2846  
Interferon, 1312
- Dermal fibroblast cells**  
Benzo(a)pyrene, 1859
- DLD-1 human colon carcinoma cells**  
Formamide, *N,N*-dimethyl-  
X-rays, 30  
Neoplasm cell heterogeneity  
X-rays, 2556
- DO1 human lung carcinoma cells**  
Pyrroles  
*bis*-Carbamoyloxy methyl derivatives, mouse, 2168  
Pyrrolizines  
*bis*-Carbamoyloxy methyl derivatives, mouse, 2168
- DS19 Friend erythroleukemia cells**  
Dexamethasone  
Bisacetamide hexamethylene, 513
- D98 Chinese hamster lung cells**  
Purine, 6-mercapto-  
Activity in sensitive/resistant cell lines, 3769
- Ehrlich ascites tumor cells**  
Anthracylines  
Drug resistance, 4719  
5-Carbamoyl-1*H*-imidazol-4-yl piperonylate  
Purines, 1098  
Etoposide  
Drug resistance, 4719  
Methotrexate, 3648  
*Griffonia simplicifolia* I  
Tumor growth inhibition, mouse, *in vivo*, 2977  
Macrophages  
*Corynebacterium parvum*, 2198  
Pyran, 2198  
Methotrexate  
Probenecid, 2532  
Vincristine, 2532  
Peritoneal mesothelium invasion,
- Ehrlich ascites tumor cells (cont'd)**  
mouse  
Electron microscopic stereoscopy 4574  
Platinum II,diamminedichloro-, *cis*  
Drug resistance, 4719  
Teniposide  
Methotrexate, 3648  
Uracil, 5-fluoro-  
DNA, 4927
- Ehrlich carcinoma cells**  
4-Carbamoylimidazolium 5-olate  
Purines, 1098
- EL-4 mouse lymphoma cells**  
Phorbol esters  
Natural killer cells, 3601  
T-cell growth factor, 1676
- EMT-6 fibrosarcoma cells**  
Spheroids, multicellular  
Q-cells(quiescent cells), 72
- EMT-6 mouse mammary tumor cells**  
T-Lymphocytes  
Colony forming unit-spleen cells 1922
- EMT6/Ro fibroblast cells**  
Spheroids, multicellular  
Oxygen, 237
- EMT6/Ro mouse mammary cells**  
Hyperthermia  
Spheroids, multicellular, 93
- Endothelial cells**  
Chemotaxis  
Fibronectin, 2547
- Epidermal cells**  
Benzo(a)pyrene  
Metabolism, transformed vs untransformed cell lines, 2579
- Epidermal basal cells**  
12-*O*-Tetradecanoylphorbol-13-acetate  
Differentiation/proliferation, skin cultures, mouse, 2344
- Epidermal keratinocyte cells**  
Benzo(a)pyrene, 1859
- Epithelial cells**  
Adenocarcinoma, 4047  
Morphology/karyotyping, 5074  
Aryl hydrocarbon hydroxylase  
Enzyme distribution, intestine, rat 1283  
Benz(a)anthracene, 7,12-dimethyl-  
Ductal dysplasia, 1753  
Mammary glands, mouse, 1753  
Cell differentiation  
Breast milk, human, 2040  
Ecto- and endocervical uterine tissue, 1142  
Cell transformation, viral  
Breast milk, human, 2040

**Epithelial cells (cont'd)**

- Fibronectin
  - Ecto- and endocervical uterine tissue, 1142
- Glycoproteins
  - Cell transformation, viral, 1147
  - MMC-E mouse embryo cells, 1147
- Glycosaminoglycans
  - WAZ-2T mammary adenocarcinoma cells, 2207
  - Culture conditions, 4975
- Mammary neoplasms
  - Morphological characteristics, in vivo growth, mouse, 5196
- $\gamma$ -Radiation
  - Benz(a)anthracene, 7,12-dimethyl-, 1753
  - Ductal dysplasia, 1753
  - Mammary glands, mouse, 1753
- 12-*O*-Tetradecanoylphorbol-13-acetate
  - Colon neoplasms, 5096

**Fibroblast cells, human**

- Benzo(a)pyrene
  - Hepatocytes, 4519
- Vitamin D3, 1,25-dihydroxy-
  - Receptors, vitamin, 856

**Fibrosarcoma cells**

- Phorbol myristate acetate
  - Cell adhesion, 190

**Flow 4000 kidney embryo cells**

- Cytochalasin B
  - Multinucleation of cells, 2575

**FM3A mouse mammary carcinoma cells**

- Adenine phosphoribosyltransferase
  - 4-Carbamoylimidazolium 5-olate, 4210
- Peplomycin
  - Anesthetics, 4726
  - Hyperthermia, 4726

**Friend erythroleukemia cells**

- Aclacinomycin A
  - Uptake/transport/nuclear incorporation, 1950
- Rhodamine 123, 799

**FRT-L rat thyroid cells**

- Cell transformation, viral
  - Biochemical markers, 618
- Virus, Kirsten murine sarcoma
  - Cell differentiation, 618

**Fu5-5 rat hepatoma cells**

- Pyridoxine
  - Evolution of pyridoxine resistance, 2362

**F2408 rat fibroblast cells**

- Sister chromatid exchange
  - Antigens, neoplasm, 1909

**G-361 human melanoma cells**

- Vitamin D3, 1,25-dihydroxy-, 856

**GH<sub>3</sub>C<sub>1</sub> cells**

- Tumor promoters
  - Epidermal growth factor, 4375
  - Somatostatin, 4375
  - Thyrotropin-releasing hormone, 4375

**GM10 skin fibroblast cells**

- Cytochalasin B
  - Multinucleation of cells, 2575

**GM258 cells**

- Interferon
  - Prostaglandins, 3209

**Granulocyte-macrophage stem cells**

- Daunorubicin
  - Cytotoxicity, in vitro, 178

**Polyamines**

- Cell differentiation, 3046

**HA-1 Chinese hamster cells**

- Dithiocarbamate, diethyl-
  - Platinum II, diamminedichloro-, *cis*, 3074
- X-rays, 3074

**HEC-1 cells**

- Interferon
  - Prostaglandins, 3209

**HEF hamster embryo fibroblast cells**

- Tumor growth factor
  - Liver cell supernatant, rat/platelet extract, human, 2350

**HeLa cells**

- Adenosine
  - Cell transport mechanism, 1289
- Antigens, neoplasm
  - Proteins, nonhistone, 4546
- Cytomycin
  - Cell cycle kinetics, 3193
- Mezerein
  - Phosphatidylcholine, 1980
  - Phospholipase C, 1980
- Peplomycin
  - Anesthetics, 4726
  - Hyperthermia, 4726
- Phorbol esters
  - Phosphatidylcholine, 1980
- Thermotolerance
  - Glycerol, 2171
- Tubercidin
  - Cell transport mechanism, 1289
- Vinblastine
  - Accumulation/release, in vitro, 3798

**HeLa S3 cells**

- Adenine, 9- $\beta$ -D-arabinofuranosyl-
  - S-Adenosyl-L-homocysteine hydrolase, 4991
- Adenosine, 2'-deoxy-
  - S-Adenosyl-L-homocysteine hydrolase, 4991

**Hematopoietic stem cells**

- Homocysteine
  - Amino acid requirement, normal/

**Hematopoietic stem cells (cont'd)**

- neoplastic cells, 3090
- Hyperthermia
  - Colony forming unit-cell assay, 1261
  - X-rays, 1261
- T-Lymphocytes
  - Bone marrow, 1922
  - EMT-6 mouse mammary tumor cells, 1922
- Methionine
  - Amino acid requirement, normal/neoplastic cells, 3090
- Methotrexate
  - Citrovorum factor, 1604
  - Colony-forming units, mouse, 530

**HEp-2 carcinoma cells**

- Adenine, 9- $\beta$ -D-arabinofuranosyl-
  - Enzyme inhibition, 2260
- Adenine, 9- $\beta$ -D-arabinofuranosyl-2-fluoro-
  - Enzyme inhibition, 2260
- Adenine, 9- $\beta$ -D-arabinofuranosyl, 5'-triphosphate
  - Enzyme inhibition, 2260

**Hepa-1c17 mouse hepatoma cells**

- Benzo(a)pyrene
  - Nanomolar concentrations, 4473

**Hepatoma cells**

- $\gamma$ -Glutamyltranspeptidase
  - Enzyme activity, rat/human, 1374

**Hepatoma/hepatoblastoma cells**

- HuH-7 human hepatoma cells, 3858

**Hepatoma, Morris 7777 cells**

- Fatty acids
  - Cell ultrastructure/chemical composition, 4639

**HFP human fetal pituitary cells**

- Cell differentiation, neoplastic
  - Transplantation, heterologous, 2336

**HGT-1 human gastric cancer cells**

- Biochemical/ultrastructural characteristics, 1541

**HL-60 human leukemia cells**

- Adenosine cyclic 3':5'-monophosphate
  - Cell differentiation, 3928
- Aspartic acid, *N*-(phosphonacetyl)-
  - Cytosine, 1- $\beta$ -D-arabinofuranosyl-, 4007
- Cell differentiation
  - Phorbol esters, 484
  - 12-*O*-Tetradecanoylphorbol-13-acetate, 1530
- Dimethyl sulfoxide
  - Cell differentiation, 445, 4421
- Estrogens
  - Cell proliferation vs hormone-binding sites, 4701
- Glycopeptides
  - Cell differentiation, 484



**HL-60 human leukemia cells (cont'd)**

- Glycoproteins
  - Dimethyl sulfoxide, 5222
  - 12-*O*-Tetradecanoylphorbol-13-acetate, 5222
- Marcellomycin
  - Cell differentiation, 2651
- Receptors, hormone
  - Estrogens, 4701
- Retinoic acid
  - Cell differentiation, 3928, 4421
- Thymidine
  - 5-Azacytidine, 2'-deoxy-, 519
- Vimetin
  - Cell differentiation, 5106
- Vitamin A
  - Cell differentiation, 3928

**HM29 human melanoma cells**

- Antigens, neoplasm
  - Antigen degradation, in vitro 2121
- Identification/purification, 2310

**HPAF human pancreatic tumor cells**

- Antibodies, monoclonal
- Antigens, neoplasm, 601

**HPB-ALL T-lymphoblast cells**

- 12-*O*-Tetradecanoylphorbol-13-acetate
- Cell differentiation, 3843

**HRT-18 rectal adenocarcinoma cells**

- Butyric acid, sodium salt
  - Cell differentiation, neoplastic 1052
- Phosphatase, alkaline, 4540
- Dimethyl sulfoxide
  - Cell differentiation, neoplastic 1052
- Retinoic acid
  - Cell differentiation, neoplastic 1052

**HS-703t human colon carcinoma cells**

- Lipoproteins, high density
- Cell growth, 3704

**HSB-2 leukemia cells**

- D-Mannosamine
- Oleate, sodium, 2867

**Hs0578T breast cancer cells**

- Vitamin D3, 1,25-dihydroxy-, 856

**HT-29 colon adenocarcinoma cells**

- Adriamycin
  - Cytotoxicity, 117
- Antigens, neoplasm
- Chromatin, 594
- Daunorubicin, imino-
  - Cytotoxicity, 117
- Pyrroles
  - bis*-Carbamoyloxy methyl derivatives, mouse, 2168
- Pyrrolizines

**HT-29 colon adenocarcinoma cells (cont'd)**

- bis*-Carbamoyloxy methyl derivatives, mouse, 2168
- Urea, 1-(2-chloroethyl)-3-(4-methylcyclohexyl)-1-nitroso-
  - Uracyl, 5-fluoro-, 5172

**HTE-B hamster tracheal epithelial cells**

- Asbestos
  - 12-*O*-Tetradecanoylphorbol-13-acetate, 3669

**HuH-7 human hepatoma cells**

- Human hepatoma/hepatoblastoma cells, 3858
- Synthetic medium growth, 3858

**Huk-HeLa human kidney/cervical cells**

- Vitamin D3, 1,25-dihydroxy-
  - Receptors, vitamin, 856

**H-35 hepatoma cells**

- Beryllium
  - Carcinogenic mechanism, 473
  - Gene expression, 473
  - Tyrosine aminotransferase, 473

**H78 hepatocellular carcinoma cells**

- RNA
  - Mastomys natalensis*, 1986
- RNA, messenger
  - Mastomys natalensis*, 1986

**IMR-90 human fetal lung fibroblast cells**

- Bleomycin
- Collagen, 3502

**JB-1 plasmacytoma cells**

- Antineoplastic agents
  - Cell cycle inhibitors, 2420

**JB6 mouse epidermal cells**

- 12-*O*-Tetradecanoylphorbol-13-acetate
  - Epidermal growth factor, 3093

**K-1735 melanoma cells**

- Actin
  - Metastases, 5183
- Vinculin
  - Metastases, 5183

**K-562 leukemia cells**

- Actinomycin
  - Antigens, neoplasm, 4694
- Adenine, 9- $\beta$ -D-arabinofuranosyl-*S*-Adenosylhomocysteine hydrolase, 1130
- Butyric acid, sodium salt
  - Antigens, neoplasm, 4694
- Cycloheximide
  - Antigens, neoplasm, 4694
- Interferon, 1312
  - Cytotoxicity of cells from cancer patients, 2480
- Natural killer cells, 2480
- Lymphoma, Hodgkins

**K-562 leukemia cells (cont'd)**

- Natural killer cells, 2063
- Immunity, cellular, 2063

**KB cells**

- Platinum(II),diamminedichloro-, *cis*- and *trans*-
  - Cytotoxicity, diffusion chamber assay, in vivo, rat, 1769

**KHt sarcoma cells**

- Cytosine, 1- $\beta$ -D-arabinofuranosyl-
  - Cell cycle kinetics, mouse, in vivo 3125

**KMT-17 rat fibrosarcoma cells**

- Cyclophosphamide
  - PS-K, 5176

**Krebs-2 tetraploid cells**

- Peritoneal mesothelium invasion, mouse
  - Electron microscopic stereoscopy 4574

**L-cells fibroblasts**

- $\alpha$ -Tocopherol
  - Growth inhibition vs morphological alterations, 550

**L mouse cells**

- Hyperthermia
  - Proteins, 1395

**L-929 mouse fibroblast cells**

- Adenine, 9- $\beta$ -D-arabinofuranosyl-*S*-Adenosylhomocysteine hydrolase, 1130

**LAZ-007 transformed B-lymphocyte cells**

- Methotrexate
  - Tetrahydrofolate, 5-formyl-, 502
  - Tetrahydrofolate, 5-methyl-, 502

**Lewis lung carcinoma cells**

- Metastases
  - Mechanism of hematogenous metastasis, mouse, 1898

**LNPL human nasopharyngeal lymphoma cells**

- Chromosome aberrations
  - Growth and characteristics, 1368
- Virus, Epstein-Barr
  - Antigens, viral, 1368

**LoVo colon carcinoma cells**

- 4'-(9-Acridinylamino)methanesulfon-*m*-anisidine
  - Cytotoxicity, in vitro, 107
- Antigens, neoplasm
- Chromatin, 594
- Colonic neoplasms
  - Growth characteristics, athymic rat, 3111
  - Transplantation, heterologous 3111

**LSH hamster embryo cells**

- Cell transformation, viral
  - Tumorigenicity of transformed cells, 939

**LS174T human colon adenocarcinoma cells**

- Cyclophosphamide
- Barbituric acid, 5-ethyl-5-phenyl- 3676
- Hydrocortisone, 3676
- Polycyclic aromatic hydrocarbons 3676

**LX1 human lung carcinoma cells**

- Neoplasm cell heterogeneity
- X-rays, 2556

**L1A, murine sarcoma cells**

- Antineoplastic agents
- Cell cycle inhibitors, 2420
- Thermotolerance
- Effect of priming heat treatment; in vivo, 4190

**L1210 leukemia cells**

- 4'-(9-Acridinylamino)methanesulfon-*m*-aniside
- DNA strand breaks vs cytotoxicity, 2687
- Adenine, 9- $\beta$ -D-arabinofuranosyl-S-Adenosyl-L-homocysteine hydrolase, 4991
- Enzyme inhibition, 2260
- Adenine, 9- $\beta$ -D-arabinofuranosyl-2-fluoro-
- Enzyme inhibition, 2260
- Adenine, 9- $\beta$ -D-arabinofuranosyl, 5'-triphosphate
- Enzyme inhibition, 2260
- Adenine, erythro-9(2-hydroxy-3-nonyl)-
- Ribonucleotide reductase, 4353
- Adenosine, 2'-deoxy-S-Adenosyl-L-homocysteine hydrolase, 4991
- Ribonucleotide reductase, 4353
- Adriamycin
- DNA strand breaks vs cytotoxicity, 2687
- 9,10-Anthracenedicarboxaldehyde DNA, 2660
- Strand break/cross-link assays 2660
- Aphidicolin
- DNA synthesis, 4050
- Bis(guanyldihydrazone), methylglyoxal-, 4072
- Blastocyst
- Regulation of neoplastic cell growth, 1082
- 5-Carbamoyl-1*H*-imidazol-4-yl piperonylate
- Purines, 1103
- 4-Carbamoylimidazolium 5-olate
- Purines, 1103
- CC-1065
- Mechanism of action, 999
- Cell membrane
- Electron spin resonance analysis 2715
- Chlorozotocin

**L1210 leukemia cells (cont'd)**

- Bone marrow, 2605
- DNA adduct removal, 2605
- Cytosine, 1- $\beta$ -D-arabinofuranosyl-
- DNA -effects/cytotoxicity/chemotherapeutic effects, 3957
- DNA synthesis, 4050
- Fluoropyrimidines, 3550
- Cytosine, 2'-fluoro-5-iodo-1- $\beta$ -D-arabinofuranosyl-
- DNA -effects/cytotoxicity/chemotherapeutic effects, 3957
- Daunorubicin, 5-imino-
- DNA strand breaks vs cytotoxicity, 2687
- 3-Deaza-6-azaUrd
- Cytotoxicity, 100
- Uridine kinase, 100
- Desferal
- Ribonucleotide reductase, 4353
- Dietary protein
- Tumor growth, mouse, 2139
- Ethyl 5-amino-1,2-dihydro-3-[(*N*-methylanilino)methyl]-
- Cytotoxicity, 791
- Fatty acids
- Thermotolerance, 3625
- Guanine, 3-deaza-
- Protein synthesis, 4039
- Hematoporphyrin derivative
- Tumor localization, 1703
- Lithocholic acid
- DNA, 2792
- Methotrexate
- Purines, 5159
- Metoprine
- Methotrexate, 924
- Nicotinamide, 6-amino-
- Urea, 1,3-bis(2-chloroethyl)-1-nitroso-, 4382
- Purine, 6-mercaptop-
- Activity in sensitive/resistant cell lines, 3769
- Urea, 3-[(4-amino-2-methyl-5-pyrimidinyl)methyl]-, 4079
- Pyrozoloimidazole
- Ribonucleotide reductase, 4353
- Rhodamine 123, 799
- Theophylline
- Urea, 1,3-bis(2-chloroethyl)-1-nitroso-, 2742
- 6-Thioguanine
- Urea, 3-[(4-amino-2-methyl-5-pyrimidinyl)methyl]-, 4079
- Thymidine
- 5-Azacytidine, 2'-deoxy-, 519
- Uracil, 5-fluoro-
- Urea, 3-[(4-amino-2-methyl-5-pyrimidinyl)methyl]-, 4079
- Uracil, 2'-fluoro-5-methyl-1- $\beta$ -D-arabinofuranosyl-
- DNA -effects/cytotoxicity/chemotherapeutic effects, 3957
- Urea, 1-(2-chloroethyl)-3-cyclohexyl-1-nitroso-
- DNA adduct removal, 2605
- Urea, 1-(2-chloroethyl)-3-( $\beta$ -D-

**L1210 leukemia cells (cont'd)**

- glucopyranosyl)-1-nitroso-
- DNA adduct removal, 2605
- Urea, hydroxy-
- Ribonucleotide reductase, 4353
- Uridine, 5-bromo-2'-deoxy-
- Urea, 3-[(4-amino-2-methyl-5-pyrimidinyl)methyl]-, 4079
- L5178Y/Asn mouse leukemic cells**
- Methotrexate
- Cytotoxicity, 1641
- L5178Y leukemia cells**
- Asparaginase
- Cytosine, 1- $\beta$ -D-arabinofuranosyl 2191
- Melphalan
- Mechanism of drug efflux, 987
- L5178Y lymphoma cells**
- Adenosine
- Cell transport mechanism, 1289
- Antineoplastic agents
- Anthracenedicarboxaldehyde bis[(4,5-dihydro-1*H*-imidazol-2-yl)hydrazon] dihydrochloride 440
- Tubercidin
- Cell transport mechanism, 1289
- L5178Y mouse leukemia cells**
- 5-Carbamoyl-1*H*-imidazol-4-yl piperonylate
- Purines, 1098
- 4-Carbamoylimidazolium 5-olate
- Purines, 1098
- M-16 human melanoma cells**
- Antigens, histocompatibility
- Antibodies, monoclonal, 4110
- Antigens, neoplasm
- Antibodies, monoclonal, 4110
- M-21 human melanoma cells**
- Antigens, histocompatibility
- Antibodies, monoclonal, 4110
- Antigens, neoplasm
- Antibodies, monoclonal, 4110
- MBT mouse bladder cells**
- N*-[4-(5-Nitro-2-furyl)-2-thiazolyl]formamide
- Carcinogenesis, 807
- Platinum(II)diamminedichloride, *cis*-
- Tumor-cloning assay, 807
- MCA-F sarcoma cells**
- Cell membrane
- Metastases, 2126
- McA-RH 8994 rat hepatoma cells**
- Calcium
- Adenosine cyclic 3':5'-monophosphate, 3116
- $\alpha$ -Aminoisobutyrate, 3116
- Glucagon, 3116
- MCF-7 breast cancer cells**
- Estrogen
- Receptors, hormone, 139
- Progesterone
- Receptors, hormone, 139

- MCF-7 breast cancer cells (cont'd)**  
 Aromatase  
 Enzyme inhibition, in vitro, 3378  
 Diethylstilbestrol  
 Receptors, hormone, 5147  
 Epidermal growth factor  
 Growth regulation, long-term cell culture, 4394  
 17 $\beta$ -Estradiol  
 Cell transformation, neoplastic 667  
 Receptors, hormone, 5147  
 Tumor growth vs implantation site, nude mouse, 906  
 Ultrastructural study, 667  
 Estrogens  
 DNA synthesis, 1727  
 Receptors, hormone, 5147  
 Lipoproteins, high density  
 Cell growth, 3704  
 Proteins  
 Estrogens, 4256  
 Receptors, hormone  
 Antiestrogens, 139  
 17 $\beta$ -Estradiol, 1967  
 Estrone, 1967  
 Tamoxifen  
 DNA synthesis, 1727  
 Receptors, hormone, 317, 5147  
 Ultrastructural study, 667  
 Transplantation, heterologous  
 Estrogen regulation of proteins 4256  
 Tumor growth vs implantation site, nude mouse, 906  
 Uracil, 5-fluoro-  
 DNA, 5015  
 DNA/RNA binding, in vitro 3005  
 Methotrexate, 5015  
 Uridine, 5-fluorodeoxy-  
 DNA/RNA binding, in vitro 3005
- MD human breast carcinoma cells**  
 Aromatase  
 Estrogens, 3369
- MEL mouse erythroleukemia cells**  
 DNA ligase  
 Cell differentiation, 1300  
 DNAase  
 Cell differentiation, 1300  
 Phosphatase, acid  
 Cell differentiation, 1300
- Meth-A rat fibrosarcoma cells**  
 Cyclophosphamide  
 PS-K, 5176
- Meth-A tumor cells**  
 Abrin  
 Adjuvant activity, mouse, 2872  
 Vaccine  
 Immunotherapy, 2872
- MG-178 glioblastoma cells**  
 Cytochalasin B
- MG-178 glioblastoma cells (cont'd)**  
 Multinucleation of cells, 2575
- MIRW human melanoma cells**  
 Fibroblast growth factor  
 Cell proliferation/morphology 3175
- MKN 28/74 gastric carcinoma cells**  
 Collagen  
 Epithelium, 2019
- ML-1 human leukemia cells**  
 1- $\beta$ -D-Arabinofuranosylcytosine  
 Cell differentiation, 5152  
 Dimethyl sulfoxide  
 Cell differentiation, 5152  
 12-*O*-Tetradecanoylphorbol-13-acetate  
 Cell differentiation, 5152
- MLT human leukemia cells**  
 D-Mannosamine  
 Oleate, sodium, 2867
- MMC-E mouse embryo cells**  
 Cell transformation, viral  
 12-*O*-Tetradecanoylphorbol-13-acetate, 2407  
 Glycoproteins  
 Epithelial cells, 1147
- MM253c1 human melanoma cells**  
 Guanidine, *N*-methyl-*N*-nitro-*N*-nitroso-  
 Cytotoxicity mechanism, 1454  
 Imidazole-4-carboxamide, 5-(3,3-dimethyl-1-triazeno-)  
 Cytotoxicity mechanism, 1454  
 Methanesulfonic acid, methyl ester  
 Cytotoxicity mechanism, 1454
- MM46 mouse mammary carcinoma cells**  
 Actinomycin D  
 Antibody-dependent macrophage-mediated cytotoxicity, 3196  
 Glutaraldehyde  
 Antibody-dependent macrophage-mediated cytotoxicity, 3196  
 Mitomycin C  
 Antibody-dependent macrophage-mediated cytotoxicity, 3196
- MOLT-3 lymphoblast cells**  
 Methotrexate  
 Drug resistance, 1655
- MOLT-4 leukemia cells**  
 Antibodies, monoclonal  
 Antigens, neoplasm, 4259  
 D-Mannosamine  
 Oleate, sodium, 2867
- MOLT-4F human lymphoblast cells**  
 Cytosine, 1- $\beta$ -D-arabinofuranosyl, 5'-triphosphate  
 Growth inhibition vs dephosphorylation, 2846
- MOPC 104E mouse myeloma cells**  
 Phosphatase, acid  
 Arginine, L-homo-, 1072
- MOPC 104E mouse myeloma cells (cont'd)**  
 Phosphatase, alkaline  
 Arginine, L-homo-, 1072
- Morris hepatoma 7777 cells**  
 Fatty acids  
 Natural killer cells, 3596  
 Thermotolerance  
 Synthesis/degradation, heat shock proteins, 2457
- MPC-11 myeloma cells**  
 Adenine, 9- $\beta$ -D-arabinofuranosyl-S-Adenosylhomocysteine hydro-lase, 1130  
 Phorbol esters  
 Natural killer cells, 3601
- M10 human melanoma cells**  
 B-Lymphocytes  
 Cell hybrids, 3971
- M14 human melanoma cells**  
 Antibodies, monoclonal  
 Carcinoma, 3142  
 Melanoma, 3142
- M5076 mouse reticulum sarcoma cells**  
 Lipopolysaccharide  
 Cell differentiation, 1850  
 12-*O*-Tetradecanoylphorbol-13-acetate  
 Cell differentiation, 1850
- M5076 mouse ovarian tumor cells**  
 Metoprine  
 Methotrexate, 924
- Natural killer cells**  
 B16 melanoma cells  
 Virus production vs tumor immunity, beige mouse, 2562  
 Virus, retro-, 2562  
*Corynebacterium parvum*  
 Immunity, cellular, 1337  
 Metastases, 1337  
 Fatty acids  
 Cell-mediated cytotoxicity, 3596  
 Morris hepatoma 7777 cells 3596  
 Interferon  
 Cytotoxicity of cells from cancer patients, 2480  
 Stimulator/antiproliferative effects 1312  
 12-*O*-Tetradecanoylphorbol-acetate, 1468  
 Kidney neoplasms  
 Arterial embolization, 3880  
 Lymphoma, Hodgkins  
 K-562 leukemia cells, 2063  
 Melanoma  
 Lymphocyte infiltration, 363  
 Prognosis, 363  
 Phorbol esters  
 Cell-mediated cytotoxicity suppression, 3601  
 EL-4 lymphoma cells, 3601  
 MPC-11 myeloma cells, 3601

- Nb2 lymphoma cells**  
Thymocyte origin, 3138
- Neoplastic cells**  
Chorioallantoic membrane  
Tumor cell migration/  
invasiveness, chick embryo  
1826  
Epithelium  
Tumor cell migration/  
invasiveness, chick embryo  
1826  
Metastases  
Microradioassay, 660  
Tumor model, mouse, 660
- Neoplastic cells, human**  
4'-(9-Acridinylamino)methanesulfon-*m*-  
-anisidide  
Chemosenstivity, in vitro, 4495  
Adenosine 5'-triphosphate  
5'-Nucleotidases, 4321  
Agar diffusion chamber  
Assay system, in vitro, 4758  
Drug sensitivity, 4758  
Antibodies, monoclonal  
Antigens, fetal, 4532  
Antigens, neoplasm  
Proteins, nonhistone, 4546  
Apyrase  
Blood platelets, 4348  
Calcitonin  
Receptors, vitamin, 1116  
Chromatin  
Proteins, nonhistone, 4546  
Drug sensitivity  
In vitro human tumor stem cell  
assay, 4683  
Epidermal growth factor  
Growth regulation, long-term cell  
culture, 4394  
Hirudin  
Blood platelets, 4348  
Interferons  
Antiproliferative activity, 4948  
Lipoproteins, high density  
Transferrin, 3704  
Phospholipase  
Blood platelets, 4348  
Soft agar  
Chemosensitivity, 2159  
Scintillation counting assay, 2159  
Uracil, 5-fluoro-  
Time-dose relationships, 4413  
Vitamin D<sub>3</sub>, 1,25-dihydro-  
Receptors, vitamin, 1116
- Neoplastic human/mouse cells**  
Aphidicolin  
DNA replication, 3810
- NIL8 hamster ovary cells**  
Spirogermanium  
Cytotoxicity/biological activity  
2852  
Human neoplastic cell lines, 2852
- NRK rat kidney cells**  
Methyl viologen  
Cytotoxicity, transformed vs non-
- NRK rat kidney cells (cont'd)**  
transformed cells, 609
- PANC-1 human pancreatic tumor cells**  
Asparaginase  
Albumin-polymer conjugate  
1020
- PA1 teratocarcinoma cells**  
Glycopeptides  
Biochemical properties, human  
cells, 1749
- PA2 human fibroblast cells**  
Neocarzinostatin  
Chromosome aberrations, 4584  
DNA repair, 4584
- PC-3 prostatic carcinoma cells**  
Zinc  
Hormonal regulation, 2
- PMC-22 human melanoma cells**  
Methotrexate  
Purines, 5159
- PM2 fibrosarcoma cells**  
Fibronectin  
Metastases, 2265  
Laminin  
Metastases, 2265
- PTK<sub>2</sub> rat kidney cells**  
Hematoporphyrin derivative  
In vitro cellular effects, 2325
- P3/NSI/1-Ag4 mouse myeloma cells**  
Antibodies, monoclonal  
Antigens, neoplasm, 1650
- P388 mouse leukemia cells**  
Adriamycin  
Calcium, 4730  
Calmodulin, 4730  
Video fluorescence microscopy  
3583  
5-Carbamoyl-1-*H*-imidazol-4-yl  
piperonylate  
Purines, 1103  
4-Carbamoylimidazolium 5-olate  
Purines, 1103  
Ethyl 5-amino-1,2-dihydro-3-[(*N*-  
methylanilino)methyl]-  
Cytotoxicity, 791  
Vincristine, 4730
- P815 mastocytoma cells**  
Cytosine, 1- $\beta$ -D-arabinofuranosyl-  
DNA -effects/cytotoxicity/  
chemotherapeutic effects, 3957  
DNA methylation, 1537  
Cytosine, 2'-fluoro-5-iodo-1- $\beta$ -D-  
arabinofuranosyl-  
DNA -effects/cytotoxicity/  
chemotherapeutic effects, 3957  
Glycoproteins  
Proteins, viral, 3828  
Lymphokines  
Cell migration, 2135  
Uracil, 2'-fluoro-5-methyl-1- $\beta$ -D-  
arabinofuranosyl-
- P815 mastocytoma cells (cont'd)**  
DNA -effects/cytotoxicity/  
chemotherapeutic effects, 3957  
Virus, Rauscher murine leukemia  
Proteins, viral, 3828
- Q-cells(quietent cells)**  
Spheroids, multicellular  
EMT-6 fibrosarcoma cells, 72  
Centrifugal elutriation, 72
- Raji cells**  
Cytosine, 1- $\beta$ -D-arabinofuranosyl,  
5'-triphosphate  
Growth inhibition vs dephospho-  
rylation, 2846
- Rama 25 rat mammary tumor cells**  
Mammary neoplasms  
Morphological characteristics, in  
vivo growth, mouse, 5196
- Rat myocardial cells**  
Hematoporphyrin derivative  
In vitro cellular effects, 2325
- RBTC-5 rat bladder cancer cells**  
Zonulae occludentes  
Proteases, 2289  
Ultrastructural study, rat, 2289
- Retinoblastoma cells**  
Aldolase  
Isoenzymes, 4228  
Hexokinase  
Isoenzymes, 4228  
Pyruvate kinase  
Isoenzymes, 4228
- RPMI 8322 human melanoma cells**  
Methanesulphonic acid, methyl ester  
DNA repair, 84  
Ultraviolet rays  
DNA repair, 84
- RRMT rat kidney tumor cells**  
Glycopeptides  
Cell membrane, 39
- RSa human cells**  
Interferon  
Prostaglandins, 3209
- RWP-1 human pancreatic cells**  
Neoplasm transplantation, heterolo-  
gous  
Tumor growth, mouse, 2705
- R3327-G rat prostate adenocarcinoma  
cells**  
Receptors, hormone  
Androgens, 2184  
Tumor growth, rat, in vivo, 2184
- S-180 mouse sarcoma cells**  
Platinum II, diammedichloro-, *cis*-  
Nucleic acids, 3565
- Sarcoma 180 cells**  
Abrins  
Cytotoxicity, 276  
Blastocyst  
Regulation of neoplastic cell  
growth, 1082



- Sarcoma 180 cells (cont'd)**  
 Dihydrofolate reductase  
 2,4-Diamino-6-(2,5-dimethoxybenzyl)-, 3987
- SCC human lung carcinoma cells**  
 $\alpha$ -Ornithine, difluoromethyl-  
 Growth inhibition, in vitro, 3070
- SCC-OH-1 human lung carcinoma cells**  
 L-Dopa decarboxylase  
 Neuroendocrine differentiation  
 1361  
 Gamma-rays, 1361
- SEKI human melanoma cells**  
 $\alpha_1$ -Antichymotrypsin  
 Isolation/characterization, nude mouse, 1549
- SH-SY5Y human neuroblastoma cells**  
 12-*O*-Tetradecanoylphorbol-13-acetate  
 Nerve growth factor, 5067
- SV3T3 fibroblast cells**  
 Cell transformation, neoplastic  
 Cell cycle kinetics, 5139  
 Epidermal growth factor, 4776  
 Transforming growth factor  
 4776  
 Cell transformation, viral  
 Amino acids, 4690  
 Growth rate vs cell density, 4690
- Swiss 3T3 fibroblast cells**  
 Retinoic acid  
 Glucose, 2-deoxy-, 4918  
 Phorbol myristate acetate, 4918  
 RNA synthesis, 4918
- SW620 adenocarcinoma cells**  
 Colonic neoplasms  
 Growth characteristics, athymic rat, 3111  
 Transplantation, heterologous  
 3111
- Syrian hamster embryo cells**  
 Cell adhesion  
 Qualitative/quantitative assay  
 3132  
 Cell transformation, neoplastic  
 Benzo(a)pyrene, 4116  
 Diethylstilbestrol, 3040  
 Epithelium, 4116  
 Guanidine, *N*-methyl-*N*-nitro-*N*-nitroso-, 4116  
 Phorbol-12,13-didecanoate, 1233  
 12-*O*-Tetradecanoylphorbol-13-acetate, 1233  
 Virus, SV40, 4116
- Cortisol**  
 Benzo(a)pyrene, 4014
- Dexamethasone**  
 Benzo(a)pyrene, 4014
- Guanidine, *N*-methyl-*N*-nitro-*N*-nitroso-**  
 Adenosine cyclic 3':5'-monophosphate, 1274  
 Guanosine cyclic 3':5'-monophosphate, 1274
- Syrian hamster epidermal cells**  
 Phorbol-12,13-didecanoate  
 Deacylation, skin, in vivo/cell, in culture, 3098  
 12-*O*-Tetradecanoylphorbol-13-acetate  
 Deacylation, skin, in vivo/cell, in culture, 3098
- Syrian hamster kidney cells**  
 Cycloheximide  
 Caffeine, 4499  
 Ultraviolet rays  
 Caffeine, 4499
- Syrian hamster ovary cells**  
 Cell transformation, neoplastic  
 Phagocytosis, 2757  
 Sulfides, metal  
 Phagocytosis, 2757
- S107 myeloma cells**  
 Antibodies  
 Immune cytotoxicity after drug exposure, 2622
- S91 Cloudman melanoma cells**  
 Trioxsalen, 4'-hydroxymethyl-  
 Ultraviolet rays, 2223
- T-79 rat thyroid cells**  
 Cell transformation, viral  
 Biochemical markers, 618  
 Virus, Kirsten murine sarcoma  
 Cell differentiation, 618
- TCC human transitional carcinoma cells**  
 Epithelium  
 Growth/culture, serum-free medium, 2392
- Tera 1 teratocarcinoma cells**  
 Glycopeptides  
 Biochemical properties, human cells, 1749
- THP-1 human leukemia cells**  
 Cell differentiation  
 12-*O*-Tetradecanoylphorbol-13-acetate, 1530
- TK6 human lymphoblast cells**  
*N*-Nitrosoglycocholic acid  
 Mutagenicity assay, 2601  
*N*-Nitrosotaurocholic acid  
 Mutagenicity assay, 2601
- TRKM transformed rat kidney cells**  
 Glycopeptides  
 Cell membrane, 39
- T<sub>1</sub> lymphoma cells**  
 4'-(9-Acridinylamino)methanesulfon-*m*-anisidine  
 Cytotoxicity, in vitro, 107
- T343 human colon carcinoma cells (cont'd)**  
 vivo/in vitro, 3793
- T348 human colon carcinoma cells**  
 Doxorubicin, 4'-deoxy-  
 Interferon, 3789
- U-937 human histiocytic lymphoma cells**  
 Adenosine cyclic 3':5'-monophosphate  
 Cell differentiation, 3924, 3928  
 Retinoic acid  
 Cell differentiation, 3924, 3928
- U-937 human leukemia cells**  
 Vimetin  
 Cell differentiation, 5106
- UCT-Mel 1 human melanoma cells**  
 Retinoic acid  
 Plasminogen activator, 5191  
 Vitamin A  
 Plasminogen activator, 5191
- Urothelial cells**  
 Arylamines  
 DNA synthesis, 3974  
 Nitrofurans  
 DNA synthesis, 3974
- UV-2237 mouse fibrosarcoma cells**  
 Actin  
 Metastases, 5183  
 Vinculin  
 Metastases, 5183
- V79 Chinese hamster ovary cells**  
 5-Azacytidine, 817  
 Benz(a)anthracene  
 Cell-mediated mutagenesis, 4619  
 Benz(a)anthracene, 7,12-dimethyl-  
 Cell-mediated mutagenesis, 4619  
 Benzo(a)pyrene  
 Cell-mediated mutagenesis, 4619  
 Benzo(a)pyrene  
 Metabolism, human/mouse, 1859  
 Chrysene  
 Mutagenicity of 1,2-diol-3,4-epoxides, 2972  
 Dibenzo(a,h)pyrene  
 Bay-region fluorinated derivatives  
 1646  
 Dibenzo(a,i)pyrene  
 Bay-region fluorinated derivatives  
 1646  
 Praziquantel  
 Acridine, 2-methoxy-6-chloro-9-[3-(2-chloroethyl)aminopropylamino]-, 2692  
 Guanidine, *N*-methyl-*N*-nitro-*N*-nitroso-, 2692
- V79 Chinese hamster lung fibroblast cells**  
 Methapyriline  
 Sister chromatid exchanges, 4614

- V79 hamster lung fibroblast cells**  
 Azomycin riboside  
 Radiosensitizers, 4358  
 Benzylthioinosine, nitro-  
 Azomycin riboside, 4358
- Walker 256 carcinosarcoma cells**  
 Dihydrofolate reductase  
 2,4-Diamino-6-(2,5-dimethoxybenzyl)-, 3987  
 Phorbol myristate acetate  
 Cell adhesion, 190
- WAZ-2T mammary adenocarcinoma cells**  
 Glycosaminoglycans  
 Epithelial cells, 2207
- WI-38 fibroblast cells**  
 Fucose  
 Amino acid fucoside, 3022  
 Cell transformation, viral, 3022
- WISH human amnion cells**  
 Interferon, 1312  
 Stimulator/antiproliferative effects  
 1312
- WM-9 melanoma cells**  
 Cytochalasin B  
 Multinucleation of cells, 2575
- XP human xeroderma pigmentosum cells**  
 Methanesulfonic acid, methyl ester  
 DNA repair, 860  
 Ultraviolet rays  
 DNA repair, 860
- YM-12 rat fibrosarcoma cells**  
 Cyclophosphamide  
 PS-K, 5176
- Yoshida sarcoma ascites cells**  
 Adenylosuccinate synthetase  
 Nucleotide synthesis, 112  
 Purification/transformation, 112
- ZR-75 breast cancer cells**  
 17 $\beta$ -Estradiol  
 Cell transformation, neoplastic  
 667  
 Ultrastructural study, 667  
 Tamoxifen  
 Ultrastructural study, 667
- 3Y1-B rat cells**  
 Clotrimazole  
 Growth of transformed vs untransformed cells, 280  
 Miconazole  
 Growth of transformed vs untransformed cells, 280
- 3041 mouse adenocarcinoma cells**  
 Cell differentiation  
 Pathological/physiological properties, 1881
- 47-DN human mammary carcinoma cells**  
 Methotrexate  
 Uracil, 5-fluoro-, 2081
- 6C3HED lymphosarcoma cells**  
 Asparaginase  
 Albumin-polymer conjugate  
 1020
- 9L rat brain tumor cells**  
 Platinum(II),diamminedichloro, *cis*-  
 Ornithine,  $\alpha$ -difluoromethyl-  
 1296  
 Spheroids, multicellular  
 Culture methods, 1223  
 Urea, chloroethylnitroso- compounds  
 Cytotoxicity, dose-response relationships, 1008
- Cervicovaginal epithelium**  
 Diethylstilbestrol  
 Adenosis, 2003  
 Neonatal/young/adult mouse  
 2003
- Cervix neoplasms**  
 Guanosine cyclic 3':5'-  
 monophosphate  
 Adenosine cyclic 3':5'-  
 monophosphate, 2938  
 Prognosis/monitoring preneoplastic lesions, human, 2938  
 Urine levels, 2938
- Chemoresitivity**  
 9,10-Anthracenedicarboxaldehyde  
 1170  
 Drug therapy  
 Human tumors, 1610  
*Letter to the editor*, 1610  
 Neocarzinostatin  
 Ataxia-telangiectasia, 2247  
 Soft agar  
 Neoplastic cells, human, 2159  
 Scintillation counting assay, 2159  
 Uracil, 5-fluoro-  
 B-Lymphocytes, 3753  
 T-Lymphocytes, 3753
- Chemotaxis**  
 Fibronectin  
 Aortic cells, bovine, 2547  
 Endothelial cells, 2547  
 Macrophages  
 Prognosis, 2489  
 Skin window test, cancer patients  
 2489
- Chemotherapy**  
 Anorexia  
 Food aversions, 715s  
 Tumor growth, 715s  
 Hyperalimentation, 747s  
 Nutrition  
 Enteral vs total parenteral feeding  
 774s  
 Gastrointestinal-related side-effects, child, 729s
- Chemotherapy (cont'd)**  
 Treatment tolerance/survival,  
 cancer patient, 774s
- Chlorozotocin**  
 L1210 leukemia cells  
 Bone marrow, 2605  
 DNA adduct removal, 2605
- Chlorpromazine**  
 Melanoma  
 Metabolism/distribution, hamster/mouse, 556
- Cholanthrene, 3-methyl-**  
 Cytochrome P-450  
 Antibody-enzyme reaction, mouse  
 1798  
 Fibrosarcoma  
 Neoplasm cell heterogeneity  
 1046  
 Phenotypic evidence of tumor origin, mouse, 1856  
 Pulmonary metastasis/growth rate/karyotyping, mouse, 1046  
 Mouse blastocysts  
 Viability vs amino acid uptake  
 864  
 Neoplasm cell heterogeneity  
 Carcinogenesis, B6 and A/J  
 phenotype mouse, 3486  
 Sarcoma  
 Carcinogenesis, mouse, 4740
- Cholanthrene, 20-methyl**  
 Epithelium  
 Carcinogenesis, dog, 4241  
 reversibility, preneoplastic alterations, 4241
- Cholesterol**  
 Colon neoplasms  
 Carcinogenesis, rat, 5050
- Choline**  
 DNA synthesis  
 Carcinogenesis, liver, rat, 412
- Chondrosarcoma**  
*see also* Sarcoma  
 Antibodies, monoclonal  
 Antigens, neoplasm, 654  
 Fibronectin  
 Chondrocytes, normal/neoplastic  
 tissue, rat, 2384
- Chorioallantoic membrane**  
 Neoplastic cells  
 Tumor cell migration/  
 invasiveness, chick embryo  
 1826
- Chromate potassium**  
 Xeroderma pigmentosum  
 DNA repair, 145
- Chromatin**  
 Aflatoxin B<sub>1</sub>  
 Binding, liver, rat, male vs female  
 5053  
 Antigens, neoplasm  
 HT-29 colon adenocarcinoma

- Chromatin (cont'd)**  
 cells, 594  
 LoVo colon carcinoma cells, 594  
 Proteins, nonhistone  
 Neoplastic cells, human, 4546
- Chromosome aberrations**  
*see also* Sister chromatid exchanges  
 LNPL human nasopharyngeal lymphoma cells  
 Growth and characteristics, 1368  
 Leukemia, lymphoblastic  
 Karyotyping and clinical characteristics, 2918  
 Karyotyping, long-term survivors 4289  
 Prognosis, 2918  
 Neocarzinostatin  
 PA2 human fibroblast cells, 4584  
 Neuroblastoma  
 Homogeneously staining regions 1838
- Chrysene**  
 V79 Chinese hamster cells  
 Mutagenicity of 1,2-diol-3,4-epoxides, 2972  
*Salmonella typhimurium*  
 Mutagenicity of 1,2-diol-3,4-epoxides, 2972
- Chrysene, 5-methyl-**  
 Bay-region epoxides  
 DNA adduct formation, skin, mouse, 1239
- Cimetidine**  
 Guanine, O<sup>6</sup>-methyl  
 Binding, gastrointestinal tissues, rat, 1962  
 DNA, 1962
- Circadian rhythm**  
*β-N*-Acetylglucosaminidase  
 Renal toxicity, rat, 950  
 Platinum(II), diamminedichloro-, *cis*-  
 Renal toxicity, rat, 945, 950
- Cirrhosis, hepatic**  
 Aromatase  
 Enzyme activity, human, 3307
- Cisplatin**  
*see* Platinum(II), diamminedichloro-, *cis*-
- Citrate**  
 Hepatoma  
 Normal/neoplastic liver mitochondria, rat, 4399
- Citrovorum factor**  
*see* Leucovorin
- Clinical reagents**  
 Benzidine, 3,5,3',5'-tetramethyl-  
 Production of colored product 2567
- Clotrimazole**  
 3Y1-B rat cells
- Clotrimazole (cont'd)**  
 Growth of transformed vs untransformed cells, 280
- Cocarcinogenesis**  
 Meeting report, 4867
- Cockayne's syndrome**  
 Ultraviolet rays  
 RNA synthesis, 1473
- Coffee beans**  
 Glutathione *S*-transferase  
 Enzyme activity, liver, mouse 1193
- Coformycin, 2'-deoxy-**  
 Adenine, 9- $\beta$ -D-arabinofuranosyl-  
 Leukemia, lymphoblastic, 2092 3884  
 Phase I clinical trial, 3884  
 Triphosphate levels, leukemic cells/erythrocytes, 2092
- Collagen**  
 Bleomycin  
 IMR-90 human fetal lung fibroblast cells, 3502  
 Fibrosis, lung, 3502  
 Chondrosarcoma  
 Chondrocytes, normal/neoplastic tissue, rat, 2384  
 Epithelium  
 Cell culture, mammary tissue, mouse, 2376  
 MKN 28/74 gastric carcinoma cells, 2019  
 Glucocorticoids  
 Lung, rat, 405  
 Metastases  
 Cell attachment to basement membrane, 2265
- Colonic neoplasms**  
 Adenocarcinoma, 4047  
 Morphology/karyotyping, 5074  
 Adenomas  
 Epithelium, 4280  
 Kinetics/location proliferating cells, in vivo, 4280  
 Ames test  
 Fecal mutagens, 1164  
 Antibodies, monoclonal  
 Antigens, neoplasm, 150  
 Antigens, neoplasm  
 Immunoperoxidase assay, 4820  
 Carbohydrates, 1176  
 LoVo colon carcinoma cells  
 Growth characteristics, athymic rat, 3111  
 Transplantation, heterologous 3111  
 SW620 adenocarcinoma cells  
 Growth characteristics, athymic rat, 3111  
 Transplantation, heterologous 3111  
 Cholesterol  
 Carcinogenesis, rat, 5050  
 Chromatin
- Colonic neoplasms (cont'd)**  
 Antigens, neoplasm, 594  
 Diet  
 Epidemiology, Japanese populations in Hawaii and Japan 1164  
 Doxorubicin, 4'-deoxy-  
 Interferon, 3789  
 Familial diseases  
 7 $\alpha$ -Dehydroxylase, 4284  
 DNA repair, 1249  
 Enzymatic activity, colon, 4284  
 Fibroblast sensitivity, 1249  
 $\beta$ -Glucuronidase, 4284  
 Microflora, fecal, 4284  
 Formamide, *N,N*-dimethyl-  
 Transplantation, heterologous 5018  
 Tumor growth, mouse, 5018  
 X-rays, 30  
 $\beta$ -Glucuronidase  
 Carcinogenesis, colon, rat, 331  
 Hydrazine, 1,2-dimethyl-  
 Adduct formation, colon epithelial cells, rat, 382  
 DNA, 382  
 Pyrimidines  
 Biochemistry/enzymology, mouse/human neoplasms 1176  
 RNA  
 Normal colon/liver/kidney vs neoplastic colon, mouse, 1088  
 Selenium  
 Tumor growth, rat, 4455  
 12-*O*-Tetradecanoylphorbol-13-acetate  
 Epithelial cells, 5096  
 Thymidylate synthetase  
 Chemotherapeutic response indicator, mouse, 450  
 Uracil, 5-fluoro-  
 Thymidine, 2930  
 Urea, 1-(2-chloroethyl)-3-(4-methylcyclohexyl)-1-nitroso-  
 Uracil, 5-fluoro-, 5172  
 Urea, *N*-methyl-*N*-nitroso-  
 Carcinogenesis, rat, 5050  
 Warfarin  
 Uracil, 5-fluoro-, 4827
- Concanavalin A**  
 Phorbol esters  
 Lymphocyte cap formation, 2115  
 Virus, avian leukosis  
 Immunosuppression, 3617
- Copper**  
 Melanoma  
 DNA, 3783  
 Strand-breaks/cross-links in cell lines, 3783
- Corticosteroids**  
 Aminoglutethimide  
 Pharmacokinetics, human, in vivo 3353  
 Diethylamine, *N*-nitroso-  
 Hepatocarcinogenesis, rat, 2426

- Cortisol**  
 Benzo(a)pyrene  
 Cell transformation, neoplastic  
 4014  
 Syrian hamster embryo cells  
 4014
- Corynebacterium parvum***  
 Natural killer cells  
 Immunity, cellular, 1337  
 Metastases, 1337  
 Macrophages  
 Ehrlich ascites carcinoma cells  
 2198
- Coumarin**  
 Glutathione *S*-transferase  
 Enzyme activity, esophagus/small  
 intestine, mouse, 1205
- Creatine kinase**  
 Prostatic neoplasms  
 Neoplastic/hyperplastic prostate  
 gland, human, 4842
- p*-Cresol, 2,6-di-tert-butyl-**  
 Enzyme activity, liver, mouse/rat  
 2609
- Crotalaria spectabilis***  
 Retronecine, dehydro-  
 Adduct formation, in vitro, 8  
 Guanosine, deoxy-, 8
- Cycasin**  
 Carcinogenic activity, gastrointes-  
 tine/skin/kidney, rat, 1774
- Cyclamate**  
 Nerve growth factor  
 Sensory ganglia, chick embryo  
 429
- 1,4-Cyclohexadiene-1,4-dicarbamidic acid,**  
 2,5-bis(1-aziridinyl)-3,6-dioxo diethyl-  
 ester, 812  
 Brain neoplasms  
 X-rays, 812
- Cycloheximide**  
 Antigens, neoplasm  
 K-562 leukemia cells, 4694  
 Caffeine  
 Syrian hamster kidney cells, 4499  
 DNA replication  
 CHO-K1 cells, 4744  
 Neocarcinostatin  
 DNA repair, 4584
- Cyclophosphamide**  
 Aminopyrine demethylase  
 Urotoxicity, rat, 3688  
 Antineoplastic agents  
 Immune response, human, 4862  
 Aryl hydrocarbon hydroxylase  
 Urotoxicity, rat, 3688  
 Barbituric acid, 5-ethyl-5-phenyl-  
 LS174T human colon adenocar-  
 cinoma cells, 3676  
 Carbamic acid, diethyldithio-  
 Leukemia L1210, 4490  
 Cytochrome P-450
- Cyclophosphamide (cont'd)**  
 Urotoxicity, rat, 3688  
 Disulfiram  
 Bladder toxicity, mouse, 4490  
 Hydrocortisone  
 LS174T human colon adenocar-  
 cinoma cells, 3676  
 Inflammatory response vs tumor  
 regression, mouse, 4437  
 Sarcoma, 4437  
 Immunity, cellular  
 Potentiation of tumor rejection  
 2211  
 Oxygen  
 Mammary neoplasms, 4921  
 Plasmacytoma  
 Immune response, 974  
 Tumor growth, mouse, 974  
 Polyadenylic-polyuridylic acid  
 Drug synergism, 4706  
 Mammary neoplasms, 4706  
 Polycyclic aromatic hydrocarbons  
 LS174T human colon adenocar-  
 cinoma cells, 3676  
 Cytochrome P-450, 3676  
 Polynucleotides  
 DNA metabolites  
 2996  
 PS-K  
 KMT-17 rat fibrosarcoma cells  
 5176  
 Meth-A rat fibrosarcoma cells  
 5176  
 YM-12 rat fibrosarcoma cells  
 5176  
 Saccharin  
 Carcinogenesis, hyperplastic blad-  
 der, rat, in vivo, 65  
*Salmonella typhimurium*  
 Mutagenicity/teratogenicity, 3106  
 X-rays  
 Dose-response study, mouse  
 1943
- Cyclophosphamide, 4-hydroperoxy-**  
 Phosphoramidate mustard  
 Catalysis conditions in vitro, 830
- Cyclophosphamide, 4-hydroxy-**  
 Phosphoramidate mustard  
 Catalysis conditions in vitro, 830  
 Metabolism scheme, 830  
*Salmonella typhimurium*  
 Mutagenicity/teratogenicity, 3106
- Cynops pyrrhogaster***  
 Skin neoplasms  
 Tumor incidence, 3741  
 Virus, herpes-type, 3741
- Cystadenocarcinoma**  
 Antibodies, monoclonal  
 Antigens, neoplasm, 1650
- Cysteamine *S*-phosphate**  
 Lymphoproliferative diseases  
 Hydrolysis, sera, normal/cancer  
 patients, 3507
- Cystine**  
 PC-3 prostatic carcinoma cells  
 Zinc, 2
- Cytembena**  
 HeLa cells  
 Cell cycle kinetics, 3193
- Cytochalasin B**  
 Cell transformation, neoplastic  
 Multinucleation of cells, 2575
- Cytochalasin D**  
 Phorbol esters  
 Lymphocyte cap formation, 2115
- Cytochrome P-450**  
 Aflatoxin B<sub>1</sub>  
 Metabolism and activation, 1120  
 Anthracene, 2-amino-  
 Mutagenic activation, 1722  
*Salmonella typhimurium*, 1722  
 Antibodies, monoclonal  
 Antibody-enzyme reaction, mouse  
 1798  
 Barbituric acid, 5-ethyl-5-phenyl-  
 Enzyme activity, kidney/lung/  
 liver, rabbit, 1423  
 Benz(a)anthracene, 7,12-dimethyl-  
 Metabolism, adrenal gland, rat  
 1479  
 Benzo(a)pyrene  
 Metabolism, adrenal gland, rat  
 1479  
 Cyclophosphamide  
 Polycyclic aromatic hydrocarbons  
 3676  
 Urotoxicity, rat, 3688  
 Dibenz(*p*-dioxin, 2,3,7,8-  
 tetrachloro-  
 Enzyme activity, kidney/lung/  
 liver, rabbit, 1423  
 Hydroxylamine, *N*-fluorene-2-yl-  
 DNA adduct formation, hepatic  
 microsomes, 2671  
 Lymphosarcoma  
 Hepatic/splenic microsomes, tu-  
 mor-bearing rat, 3557  
 Polycyclic aromatic hydrocarbons  
 Mutagenic activation, 1620  
*Salmonella typhimurium*, 1620  
 Review, 4875
- Cytosine, 1- $\beta$ -D-arabinofuranosyl-**  
*N*<sup>6</sup>-Acyl derivatives  
 Enzyme hydrolysis, 2250  
 Asparaginase  
 LS178Y leukemia cells, 2191  
 Therapeutic drug interaction, in  
 vivo/in vitro, 2191  
 Aspartic acid, *N*-(phosphonacetyl)-  
 Bone marrow cells, 4007  
 HL-60 leukemia cells, 4007  
 Cell differentiation  
 ML-1 human leukemia cells  
 5152  
 CRL 1187 human fibroblast cells  
 DNA repair, 145  
 KHT sarcoma cells



- Cytosine, 1- $\beta$ -D-arabinofuranosyl- (cont'd)**  
 Cell cycle kinetics, mouse, in vivo 3125  
 L1210 leukemia cells  
 DNA -effects/cytotoxicity/chemotherapeutic effects, 3957  
 P815 mastocytoma cells  
 DNA -effects/cytotoxicity/chemotherapeutic effects, 3957  
 DNA methylation, 1537  
 Colony forming unit-cell, spleen  
 Inhibition vs drug lethality, mouse, 638  
 DNA, 3125  
 DNA repair  
 CRL 1187 human fibroblast cells 145  
 Xeroderma pigmentosum, 145  
 DNA replication  
 CHO-K1 cells, 4744  
 DNA synthesis  
 L1210 leukemia cells, 4050  
 Drug synergism  
 $\gamma$ -Rays, 5231  
 Tumor growth, mouse, 5231  
 Fluoropyrimidines  
 L1210 leukemia cells, 3550  
 Cytotoxicity/metabolism, 3550  
 Immunosuppression  
 Transplantation, heterologous 3696  
 Tumor model, mouse, 3696  
 Leukemia(s)  
 Cytotoxicity, human/mouse cell lines, 2598  
 High-dose therapy, 1587  
 Lymphoma(s)  
 High-dose therapy, 1587  
 Neocarzinostatin  
 DNA repair, 4584  
 Urea, hydroxy-  
 Cytotoxicity, in vitro, 4339  
 Drug synergism, 4339  
 Sarcoma 180, 4339  
 Uridine, tetrahydro-  
 Pharmacokinetics, cerebrospinal fluid, monkey, 1736
- Cytosine, 1- $\beta$ -D-arabinofuranosyl, 5'-triphosphate**  
 Daudi cells  
 Growth inhibition vs dephosphorylation, 2846  
 MOLT-4F human lymphoblast cells  
 Growth inhibition vs dephosphorylation, 2846  
 Raji cells  
 Growth inhibition vs dephosphorylation, 2846  
 Leukemia, lymphoblastic  
 DNA polymerase  $\alpha$ , 649  
 Leukemia, myeloblastic  
 DNA polymerase  $\alpha$ , 649
- Cytosine, 2'-fluoro-5-iodo-1- $\beta$ -D-arabinofuranosyl-**  
 L1210 leukemia cells
- Cytosine, 2'-fluoro-5-iodo-1- $\beta$ -D-arabinofuranosyl- (cont'd)**  
 DNA -effects/cytotoxicity/chemotherapeutic effects, 3957  
 P815 mastocytoma cells  
 DNA -effects/cytotoxicity/chemotherapeutic effects, 3957
- Cytoskeleton**  
 Cell differentiation  
 HL-60 human leukemia cells 5106  
 U-937 human leukemia cells 5106
- D**
- Danazol**  
 Aminoglutethimide  
 Breast neoplasms, 3458
- Daunorubicin**  
 DNA  
 Free radical formation, cell nuclei, rat, 1078  
 DNA linkage  
 Antileukemic activity, mouse 178  
 Cytotoxicity, in vitro, 178  
 Ricin A  
 Leukemia L1210, 2152
- Daunorubicin, 5-imino-**  
 HT-29 colon carcinoma cells  
 Cytotoxicity, 117  
 L1210 leukemia cells  
 DNA strand breaks vs cytotoxicity, 2687
- Deacylcortivazol**  
 CEM-C7 human leukemia cells  
 Non-receptor mediated effects 2110  
 Receptors, hormone, 2110
- 3-Deaza-6-azaUrd**  
 see 1-( $\beta$ -D-Ribofuranosyl)-pyridazin-6-one, 4-hydroxy-
- 7 $\alpha$ -Dehydroxylase**  
 Familial disease  
 Colon neoplasms, 4284
- Deoxycytidine kinase**  
 Biological marker, serum cancer patients  
 Enzyme activity, serum, mouse 2514
- 1-[N<sup>3</sup>-Deoxycytidyl], 2-[N<sup>3</sup>-deoxyguanosinyl]ethane**  
 DNA  
 Interstrand cross-linking, 3102  
 Urea, N,N'-bis(2-chloroethyl)-N-nitroso-, 3102
- Deoxyribonucleoside kinase**  
 L1210 leukemia cells  
 Isolation and characterization 3033
- Deoxythymidine kinase**  
 Biological marker, serum cancer patients  
 Enzyme activity, serum, mouse 2514
- Desferal**  
 Ribonucleotide reductase  
 L1210 leukemia cells, 4353
- Deuterium**  
 Methotrexate  
 Tumor growth, mouse, 1125
- Dexamethasone**  
 Aminoglutethimide  
 Breast neoplasms, 3402  
 Therapeutic response in metastatic disease, human, 3402  
 Benzo(a)pyrene  
 Cell transformation, neoplastic 4014  
 Syrian hamster embryo cells 4014  
 Bisacetamide hexamethylene  
 DS19 Friend erythroleukemia cells, 513  
 PC-3 prostatic carcinoma cells  
 Zinc, 2  
 Fibrosarcoma  
 Cell cycle kinetics, 1686
- 2,4-Diamino-5-adamantyl-6-methylpyrimidine**  
 see Pyrimidine, 2,4-diamino-5-adamantyl-6-methyl-
- 2,4-Diamino-6-(2,5-dimethoxybenzyl)-5-methylpyrido(2,3-d)pyrimidine**  
 Dihydrofolate reductase  
 Sarcoma 180 cells, 3987  
 Walker 256 cells, 3987
- 1,2:5,6-Dianhydrogalactitol**  
 Bleomycin  
 Cell cycle kinetics, 2894  
 CHO cells, 2894  
 Cell cycle kinetics  
 Solid tumor therapy, human 2899
- Dibenzo-p-dioxin, 2,3,7,8-tetrachloro-**  
 Cytochrome P-450  
 Enzyme activity, kidney/lung/liver, rabbit, 1423
- Dibenzo(a,h)pyrene**  
 Bay-region diol epoxides  
 Carcinogenesis, skin, mouse, 25  
 Bay-region fluorinated derivatives  
 Mutagenesis activity, 1646
- Dibenzo(a,h)pyrene**  
 Bay-region diol epoxides  
 Carcinogenesis, skin, mouse, 25  
 Bay-region fluorinated derivatives  
 Mutagenesis activity, 1646

**N<sup>6</sup>, O<sup>6</sup>-Dibutyryladenine cyclic 3':5'-monophosphate**

- Prostaglandins
- Carcinogenesis, prostate gland, mouse, 3682

**Diet**

- Aging
  - Immune response, mouse/human 737s
- Colonic neoplasms
  - Epidemiology, Japanese populations in Hawaii and Japan 1164
- Mammary neoplasms
  - Tumor growth, rat, 4943
- Nutrition
  - Assessment, child, 699s
- Prostatic neoplasms
  - Androgens, 3864
  - Estrogens, 3864
- Review
  - Enzyme activity, 4875
  - Liver microsomes, human, 4875
- Virus, hepatitis B
  - Hepatoma, 5246

**Dietary amino acids**

- Carbidopa
  - Tumor growth, mouse, 3056
- Levodopa
  - Tumor growth, mouse, 3056
- Melanoma
  - Tumor growth, mouse, 3056

**Dietary fat**

- Breast neoplasms
  - Tumor growth, rat, 1266
- L1210 leukemia cells
  - Cell membrane, 2715
  - Lipids, 2715

**Dietary protein**

- L1210 leukemia cells
  - Tumor growth, mouse, 2139

**Dietary zinc**

- Immunosuppression
- Review, 737s

**Diethylamine, N-nitroso-**

- Bile acids
  - Hepatocarcinogenesis, rat, 2426
- Corticosteroids
  - Hepatocarcinogenesis, rat, 2426
- Estradiol
  - Hepatocarcinogenesis, rat, 2426

**Diethylstilbestrol**

- Cell transformation, neoplastic
  - Syrian hamster embryo fibroblast cells, 3040
- Cervicovaginal epithelium
  - Adenosis, 2003
  - Neonatal/young/adult mouse 2003
- Kidney neoplasms
  - Hypophysectomized rat, 1015

**Diethylstilbestrol (cont'd)**

- Prostaglandin synthetase
- Oxidative metabolism, seminal vesicles, ram, 919
- Prostatic neoplasms
  - Tumor growth/metastases, rat 1390
- Receptors, hormone
  - MCF-7 breast cancer cells, 5147
- Sister chromatid exchanges
  - Lymphocytes, 893
- Pregnant/premenopausal/postpausal women, men, 893

 **$\alpha$ -Difluoromethylornithine**

- see Ornithine,  $\alpha$ -difluoromethyl-

**Dihydrofolate reductase**

- 2,4-Diamino-6-(2,5-dimethoxybenzyl)-
  - Sarcoma 180 cells, 3987
  - Walker 256 cells, 3987

**Dimethyl sulfoxide**

- Cell differentiation
  - HL-60 leukemia cells, 445, 4421
  - MEL mouse erythroleukemia cells 1300
  - ML-1 human leukemia cells 5152
- HRT-18 rectal adenocarcinoma cells
  - Cell differentiation, neoplastic 1052
- Glycoproteins
  - HL-60 leukemia cells, 5222
- Phorbol esters
  - Cell differentiation, 484
  - HL-60 leukemia cells, 484

**5-(3,3'-Dimethyl-1-triazeno)imidazole-4-carboxamide**

- see Imidazole-4-carboxamide, 5-(3,3'-dimethyl-1-triazeno)-

**Dimethylamine, N-nitroso-**

- Guanine, O<sup>6</sup>-methyl-
  - Hepatocarcinogenesis, mouse, in vivo, 4153
- Metabolism
  - Liver/esophageal microsomes, rat 3181

**7,12-Dimethylbenz(a)anthracene**

- see Benz(a)anthracene, 7,12-dimethyl-

**Dimethyldioctadecyl ammonium bromide**

- Antigens, neoplasm
  - Immune response, human, 4959

**2,4-Dinitrophenol**

- Adriamycin
  - CHO cells, 3934

**Diphtheria toxin**

- Immunotherapy
  - Response in immune vs nonimmune patients, 2054

**Disulfiram**

- Acetamide, N-fluorenyl-
  - Carcinogenesis inhibition, 2985
  - Normal/regenerating liver/colon, rat, 2985
- Carbamic acid, diethyldithio-, 4490
- Cyclophosphamide
  - Bladder toxicity, mouse, 4490

**Dithiocarbamate, diethyl-**

- Platinum II, diamminedichloro-, *cis*
  - HA-1 Chinese hamster cells 3074
- DNA repair, 3074
- X-rays
  - HA-1 Chinese hamster cells 3074
  - DNA repair, 3074

**DNA**

- Acetamide, N-fluorenyl-
  - Binding, bladder tissue, human/rat, 642
- Aflatoxin B<sub>1</sub>
  - Antibodies, monoclonal, 3120
- Anemia, Fanconi's
  - Alkylating agents, 4000
- Aniline
  - Alkaline elution assay, 2277
  - Liver/kidney/bone marrow/spleen, rat/mouse, 2277
- 9,10-Anthracenedicarboxaldehyde
  - L1210 leukemia cells, 2660
- Benzo(a)pyrene
  - Binding, bladder tissue, human/rat, 642
  - C3H/10T1/2 mouse embryo cells 2764
- Bladder neoplasms
  - Histograms, tumor diagnosis, human, 1094
- Bleomycin
  - Cleavage of nucleotide sequences 1399
  - Computer analysis of strand breaks, 2779
- CC-1065
  - Mechanism of drug-DNA interaction, 2821
- Cimetidine
  - Binding, gastrointestinal tissues, rat, 1962
  - Guanine, O<sup>6</sup>-methyl, 1962
- Cytosine, 1- $\beta$ -D-arabinofuranosyl- 3125
- 1-[N<sup>6</sup>-Deoxycytidyl], 2-[N<sup>6</sup>-deoxyguanosinyl]ethane
  - Interstrand cross-linking, 3102
- Urea, N,N'-bis(2-chloroethyl)-N-nitroso-, 3102
- Epidermodysplasia verruciformis
  - Isolation/characterization, case report, 2440
- Fibrosarcoma
  - Density-separated subpopulations 4999
- Filtration assay
  - Single-strand/double-strand DNA

**DNA (cont'd)**

- breaks, hepatocytes, rat, 2592
- Gamma radiation
  - Single-strand/double-strand DNA breaks, hepatocytes, rat, 2592
- Hydrazine, 1,2-dimethyl-
  - Adduct formation, colon epithelial cells, rat, 382
- Lithocholic acid
  - L1210 leukemia cells, 2792
  - Strand breaks in cells, cell organelles, isolated DNA/nucleoids, 2792
- Macrophages
  - Tumoricidal activity vs DNA reduction, 2198
- Meeting report
  - Methylation/alkylation and role in carcinogenesis, 2099
- Melanoma
  - Copper, 3783
  - L-Dopa, 3783
- Nickel carbonate
  - Cell nucleus, 3544
- N-Nitrosamines
  - Single-strand/double-strand DNA breaks, hepatocytes, rat, 2592
- Phenylalanine mustard
  - Burkitt's lymphoma, 897
- Phosphoramide mustard
  - Adduct formation, 2616
- Platinum(II)diamminedichloride, *cis*-
  - Burkitt's lymphoma, 897
- Polynucleotides
  - DNA metabolites, 2996
- Talisomycin
  - Cleavage of nucleotide sequences, 1399
  - Computer analysis of strand breaks, 2779
- Uracil, 5-fluoro-
  - Ehrlich ascites tumor cells, 4927
  - MCF-7 breast cancer cells, 5015
- Virus, papilloma
  - Epidermodysplasia verruciformis, 2440

**DNA ligase**

- MEL mouse erythroleukemia cells
- Cell differentiation, 1300

**DNA polymerase  $\alpha$** 

- Leukemia, lymphoblastic
  - Cytosine, 1- $\beta$ -D-arabinofuranosyl, 5'-triphosphate, 649
- Leukemia, myeloblastic
  - Cytosine, 1- $\beta$ -D-arabinofuranosyl, 5'-triphosphate, 649

**DNA repair**

- Acetamide, *N*-fluoren-2-yl-
  - Liver, rat, 4203
- Carcinogenesis, skin, mouse, 5216
- CRL 1187 human fibroblast cells
  - Cytosine, 1- $\beta$ -D-arabinofuranosyl, 145
  - DNA-protein cross-linking agents, 145

**DNA repair (cont'd)**

- Formaldehyde, 145
- Platinum(II)diamminedichloride, *trans*-, 145
- Potassium chromate, 145
- Urea, hydroxy-, 145
- Chlorozotocin
  - L1210 leukemia cells, 2605
- Dithiocarbamate, diethyl-
  - Platinum II,diamminedichloro-, *cis*-, 3074
  - X-rays, 3074
- Escherichia coli*
  - Platinum(II), diamminedichloro-, *cis*-, 2416
- Familial diseases
  - Colonic neoplasms, 1249
- Guanidine, *N*-methyl-*N*-nitro-*N*-nitroso-
  - Fibroblast sensitivity, 1249
- Leukemia, lymphoblastic
  - Child patients in remission, 2906
- Melanoma
  - Methanesulfonic acid, methyl ester
    - Fibroblast sensitivity, 1249
  - Ultraviolet rays, 84
  - Xeroderma pigmentosum, 860
- Mitomycin C
  - CHO cells, 3106
- Neocarzinostatin
  - PA2 human fibroblast cells, 4584
- 4-Nitroquinoline 1-oxide
  - Fibroblast sensitivity, 1249
- Platinum II,diamminedichloro-, *cis*-
  - CHO cells, 3106
  - Temperature effects on cytotoxicity, 2416
- Retinoblastoma
  - X-rays, 1343
- Saccharomyces cerevisiae*
  - Antineoplastic agents, 929
- Sister chromatid exchanges
  - Leukemia, lymphoblastic, 2906
- Ultraviolet rays
  - Xeroderma pigmentosum, 860
- Urea, 1-(2-chloroethyl)-3-cyclohexyl-1-nitroso-
  - L1210 leukemia cells, 2605
- Urea, 1-(2-chloroethyl)-3-( $\beta$ -D-glucopyranosyl)-1-nitroso-
  - L1210 leukemia cells, 2605
- Xeroderma pigmentosum
  - Cytosine, 1- $\beta$ -D-arabinofuranosyl, 145
  - DNA-protein cross-linking agents, 145
  - Formaldehyde, 145
  - Platinum(II)diamminedichloride, *trans*-, 145
  - Potassium chromate, 145

**DNA replication**

- Aphidicolin
  - Neoplastic human/mouse cells, 3810
- Cycloheximide

**DNA replication (cont'd)**

- CHO-K1 cells, 4744
- Cytosine, 1- $\beta$ -D-arabinofuranosyl-
  - CHO-K1 cells, 4744
- Retinoblastoma
  - DNA repair, 1343

**DNA synthesis**

- Adenine, 9- $\beta$ -D-arabinofuranosyl-2-fluoro-
  - Comparison of two dose schedules, mouse, 2587
- Aphidicolin
  - L1210 leukemia cells, 4050
- Arylamines
  - Urothelial cells, 3974
- Ataxia telangiectasia
  - Carcinogenic agents, 335
  - X-rays, 335
- Barbituric acid, 5-ethyl-5-phenyl-
  - Carcinogenesis, liver, rat, 412
- Breast neoplasms
  - Receptors, hormone, 359
- Carcinogen screening
  - Hepatocytes, 3010
- Cytosine, 1- $\beta$ -D-arabinofuranosyl-
  - L1210 leukemia cells, 4050
  - P815 mastocytoma cells, 1537
- Estrogens
  - MCF-7 breast cancer cells, 1727
  - Orthophosphate vs thymidine labeling, 1727
- Guanine, O<sup>6</sup>-methyl-
  - Hepatocarcinogenesis, mouse, in vivo, 4153
- Hepatocytes
  - Normal/neoplastic cells, liver, rat, 4673
- Hydrazine, 1,2-dimethyl-
  - Hepatocytes, 89
- Magnesium
  - Cell population density/passage frequency, 1761
  - BALB/c 3T3 fibroblast cells, 1761
- Nitrofurans
  - Urothelial cells, 3974
- Nitrosamine, diethyl-
  - Hepatocytes, 89
- Nitrosamine, *N*-dimethyl
  - Regenerating liver, rat, 3814
- 12-O-Tetradecanoylphorbol-13-acetate
  - Lectins, 1630
- Tamoxifen
  - MCF-7 breast cancer cells, 1727
  - Orthophosphate vs thymidine labeling, 1727
- Thioacetamide
  - RNA-DNA hybridization, 421
- Uracil, 5-fluoro-
  - Uridine, 3964

**DNA, viral**

- Acetamide, *N*-fluoren-2-yl, *N*-acetoxy-, 3480
- Benzo(a)pyrene, 3480

**DNA, viral (cont'd)**

- Cell transformation, neoplastic
  - AKR-MCA mouse embryo cells 569
  - AKR-2B mouse embryo cells 569
  - C3H/MCA-58 mouse embryo cells, 569
  - C3H/10T1/2 mouse embryo cells 569
  - Virus, AKR-murine leukemia 569
- Mammary neoplasms
  - Genotypic variance, 1154
  - Tumor growth, mouse, 1154
- $\beta$ -Propiolactone
  - Depurination and mutagenicity 3480

**DNAase**

- MEL mouse erythroleukemia cells
- Cell differentiation, 1300

**L-Dopa decarboxylase**

- SCC-OH-1 human lung carcinoma cells
- Neuroendocrine differentiation 1361

**L-Dopa**

- Melanoma
  - DNA, 3783
  - Strand-breaks/cross-links in cell lines, 3783

**Dopamine, 6-hydroxy-**

- Ascorbic acid, sodium salt
  - Bone marrow cell clearance 1331
- Leukemia(s), 1331
- Neuroblastoma, 1331
- Rhabdomyosarcoma
  - Cytotoxicity, in vitro, 1331

**Doxorubicin**

- Liposomes
  - Cardiotoxicity, mouse, 1817

**Doxorubicin, 4'-deoxy-**

- T343 human colon carcinoma cells
  - Drug sensitivity, nude mouse, in vivo/in vitro, 3793
- T348 human colon carcinoma cells
  - Interferon, 3789

**Drug resistance**

- Anthracyclines
  - 4719
- Etoposide, 4719
- Platinum II, diamminedichloro-, *cis*
  - Ehrlich ascites tumor cells, 4719

**Drug sensitivity**

- Agar diffusion chamber
  - Assay system, in vitro, 4758
  - Neoplastic cells, human, 4758
- Bleomycin
  - Soft agar, 4026
- Metastases
  - Cell suspensions from 38 tumors/metastases, 4086

**Drug sensitivity (cont'd)**

- Thymidine
  - In vitro human tumor stem cell assay, 4683

**Drug synergism**

- Adenine, 9- $\beta$ -D-arabinofuranosyl-
  - Coformycin, 2'-deoxy-, 3884
- Adriamycin
  - 2,4-Dinitrophenol, 3934
  - D-Glucose, 2-deoxy-, 3934
- Aspartic acid, *N*-(phosphonacetyl)-
  - Cytosine, 1- $\beta$ -D-arabinofuranosyl- 4007
- Cyclophosphamide
  - Polyadenylic-polyuridylic acid 4706
- Cytosine, 1- $\beta$ -D-arabinofuranosyl-
  - $\gamma$ -Rays, 5231
  - Tumor growth, mouse, 5231
- Urea, hydroxy-, 4339
- 1,2:5,6-Dianhydrogalactitol
  - Bleomycin, 2894
- Etoposide
  - Methotrexate, 3648
- Leukemia, T-cell, 2867
- Lung neoplasms
  - 2 Drug/3 drug therapy, mouse 2963
  - Statistical modeling, 2963
- Lymphoma, Hodgkin's
  - Review, 4309
- D-Mannosamine
  - Oleate, sodium, 2867
- Melanoma
  - 2 Drug/3 drug therapy, mouse 2963
  - Statistical modeling, 2963
- Nicotinamide, 6-amino-
  - Urea, 1,3-bis(2-chloroethyl)-1-nitroso-, 4382
- Phenethylbiguanide
  - Bis(guanyldihydrazone)-, 4,4'-diacetyldiphenylurea-, 3592
  - Bis(guanyldihydrazone)-, methylglyoxal-, 3592
  - Valinomycin, 3592
- Teniposide
  - Methotrexate, 3648
- Theophylline
  - Urea, 1,3-bis(2-chloroethyl)-1-nitroso-, 2742
- 6-Thioguanine
  - Urea, 3-[(4-amino-2-methyl-5-pyrimidinyl)methyl]-, 4079
- Uracil, 5-fluoro-
  - Testosterone, 2 $\alpha$ -methylidihydro-, propionate, 4408
- Urea, 1-(2-chloroethyl)-3-(4-methylcyclohexyl)-1-nitroso-
  - Uracil, 5-fluoro-, 5172
- Vinblastine
  - $\gamma$ -Rays, 5231
  - Tumor growth, mouse, 5231

**Drug therapy**

- Chemosensitivity
  - Human tumors, 1610

**Drug therapy (cont'd)**

- Letter to the editor*, 1610

**Dyskeratosis congenita**

- Chromosome aberrations
- Cancer incidence, 3252

**E****E.C. 2.7.3.2.**

- see* Creatine kinase

**EC 2.4.28**

- see* Adenine phosphoribosyltransferase

**EC 3.3.1.1**

- see* S-Adenosyl-L-homocysteine hydrolase

**EC 3.4.4.4**

- see* Adenosine deaminase

**EC 3.6.1.1**

- see* Pyrophosphatase, 3526

**EC 4.1.1.17**

- see* Ornithine decarboxylase

**EC 4.1.1.50**

- see* S-Adenosyl-L-methionine decarboxylase

**EC 6.3.4.4**

- see* Adenylosuccinate synthetase

**Electron transport system**

- Lymphosarcoma
  - Hepatic/splenic microsomes, tumor-bearing rat, 3557

**ELISA**

- Antigens, neoplasm
  - Sarcoma, 3978

**Embryonal neoplasms**

- Acetamide, dimethyl-
  - Cell differentiation, 1843
- Retinoic acid
  - Cell differentiation, 1843

**Endometrial carcinoma**

- Estradiol dehydrogenase
  - Enzyme activity, normal/neoplastic endometrium, 1322
- Receptors, hormone
  - Progesterone, 1322

**Endometrial neoplasms**

- Hormones, sex
  - Review, 3232

**Enzyme-linked immunoabsorbant solid-phase assay**

- see* ELISA

**Epiandrosterone, dehydro-**

- Nutrition
  - Immune response, mouse/human 737s

**Epidemiology**

- Melanoma
  - Antigens, histocompatibility 4276



**Epidermal growth factor**

- Cell transformation, neoplastic SV3T3 fibroblast cells, 4776
- AKR-MCA mouse embryo cells
  - Cell transformation, neoplastic 2633
- C3H/MCA-58 cells
  - Cell transformation, neoplastic 2633
- MCF-7 breast cancer cells
  - Growth regulation, long-term cell culture, 4394
- Neoplastic cells, human
  - Growth regulation, long-term cell culture, 4394
- 12-*O*-Tetradecanoylphorbol-13-acetate
  - JB6 mouse epidermal cells, 3093
- Tumor promoters
  - GH<sub>3</sub>C cells, 4375

**Epidermodysplasia verruciformis**

- Virus, papilloma
  - DNA, 2440
  - Isolation/characterization, case report, 2440

**Epithelium**

- $\alpha_1$ -Acid glycoprotein
  - Normal/neoplastic breast tissue, human, 4567
- $\alpha_1$ -Antichymotrypsin
  - Normal/neoplastic breast tissue, human, 4567
- Aryl hydrocarbon hydroxylase
  - Enzyme distribution, intestine, rat 1283
- Benz(a)anthracene, 7,12-dimethyl-
  - Dose-response study, 4511
  - Trachea, rat, in vivo, 4511
- Carcinoma, epidermoid
  - Cell migration, 4248
  - Phase/reflection microscopy, time lapse cinematography, 4248
- Cell differentiation
  - Ecto- and endocervical uterine tissue, 1142
- Cell transformation, neoplastic
  - Actin, 4591
  - Syrian hamster embryo cells 4116
  - Filaments, 4591
  - Microtubules, 4591
- Neoplastic cells
  - Tumor cell migration/invasiveness, chick embryo 1826
- TCC human transitional cells carcinoma
  - Growth/culture, serum-free medium, 2392
- Cholanthrene, 20-methyl
  - Carcinogenesis, dog, 4241
  - Reversibility, preneoplastic alterations, 4241
- Collagen
  - Cell culture, mammary tissue, mouse, 2376

**Epithelium (cont'd)**

- MKN 28/74 gastric carcinoma cells, 2019
- Colon neoplasms
  - Adenomas, 4280
- Glycoproteins
  - Cell transformation, viral, 1147
- Hepatoma, Novikoff ascites
  - Antigens, neoplasm, 1441
- Keratin
  - Carcinogenesis, bladder, mouse 4098
- Prolactin
  - Normal/neoplastic, breast/prostate tissue, human, 2317
  - Peroxidase-antiperoxidase immunoassay, 2317

**Erwinia carotovora**

- Asparaginase
  - Immunological/pharmacological characterization, 4068
- Poly-DL-alanine peptide modification, 4068

**Erythrocytes**

- Serine protease, 207

**Escherichia coli**

- Colonic neoplasms
  - Epidemiology, Japanese populations in Hawaii and Japan 1164
- Fecal mutagens, 1164
- Platinum(II), diamminedichloro-, *cis*-DNA repair, 2416
- Temperature effects on cytotoxicity, 2416

**Esophageal neoplasms**

- Benzylamine, *N*-methyl-(4-methyl)-*N*-nitroso-
  - Carcinogenic mechanism/metabolism, rat, in vivo, 2836
- Benzylamine *H*-methyl-*N*-nitroso-
  - Carcinogenic mechanism/metabolism, rat, in vivo, 2836

**Estr-4-ene-3,17-dione**

- Aromatase
  - Enzyme inhibition, 3322
- Placenta, 3322

**Estradiol**

- HL-60 leukemia cells
  - Cell proliferation vs hormone-binding sites, 4701
- Diethylamine, *N*-nitroso-
  - Hepatocarcinogenesis, rat, 2426
- Obesity
  - Breast neoplasms, 3289

**17 $\beta$ -Estradiol**

- MCF-7 breast cancer cells
  - Cell transformation, neoplastic 667
  - Receptors, hormone, 1967
  - Tumor growth vs implantation site, nude mouse, 906
  - Ultrastructural study, 667

**17 $\beta$ -Estradiol (cont'd)**

- ZR-75 breast cancer cells
  - Cell transformation, neoplastic 667
  - Ultrastructural study, 667
- Estrogen-binding protein, pancreatic tissue
  - Isolation/characterization, 633
- Pituitary neoplasms
  - Tumor growth, rat, 1492
- Prolactin
  - CAMA-1 human breast cancer cells, 5060
- Receptors, hormone
  - MCF-7 breast cancer cells, 5147

**Estradiol dehydrogenase**

- Endometrial carcinoma
  - Enzyme activity, normal/neoplastic endometrium, 1322

**Estramustine phosphate**

- Prostatic neoplasms
  - Binding, prostate tissue, human 1935

**Estrogens**

- Aminoglutethimide
  - Biosynthesis, human tissues, in vivo, 3353
  - Steroid hormones, plasma/urine, cancer patients, 3397
- Aromatase, 3307
  - Biochemical mechanism of formation, 3277
  - Biosynthesis, human breast, in vitro, 3373
  - Breast neoplasms, 3342
  - MD human breast carcinoma cells, 3369
  - Enzyme activity, normal/neoplastic breast tissue, 3369
  - Phylogenetic overview, 3342
  - Review, 3269
- Breast neoplasms
  - Androstenedione, 3369
  - Aromatase, 3382
  - Biosynthesis, tumor tissue, in vitro, 3338
  - Cytoplasm/nucleus, breast tissue, male patient, 4812
  - Mechanism of antiestrogen activity, human, 3420
  - Receptors, hormone, 3338, 3420
  - CAMA-1 human breast cancer cells
    - Tumor model, in vitro, 5060
  - MCF-7 breast cancer cells
    - Receptors, hormone, 1967
  - DNA synthesis
    - MCF-7 breast cancer cells, 1727
    - Orthophosphate vs thymidine labeling, 1727
  - Mammary neoplasms
    - Hormone dependency, 3510
  - Obesity
    - Breast neoplasms, 3289
    - Cancer predisposition, humans 3281

**Estrogens (cont'd)**

- Sex-hormone metabolism, 3281
- Placenta
  - Biosynthesis mechanism, 3327
- Prostatic neoplasms
  - Diet, 3864
- Proteins
  - Antibodies, monoclonal, 4256
  - MCF-7 breast cancer cells, 4256
- Receptors, hormone
  - Binding, uterus, fetal guinea pig 1913
  - Breast neoplasms, 359, 4443 4449
  - HL-60 leukemia cells, 4701
  - MCF-7 breast cancer cells, 139
  - MCF-7 breast cancer cells, 5147
  - DNA synthesis, 359
  - 17-Fluoresceinated estrone, 540
  - Mammary neoplasms, 2255 2434, 3492
  - Myometrial tissue, human, 4443
  - Pathology of tumors vs receptor content, dogs, 2255
  - Pituitary neoplasms, 1492
  - Receptor binding assay, 540
  - Receptor characteristics, male mouse, 2434
  - Tamoxifen, 317
  - Tumor growth, rat, 3492
- Receptors, human
  - Breast neoplasms, 3365
- Urea, *N*-methyl-*N*-nitroso-
  - Tumor growth, rat, 3492

**Estrone**

- Obesity
  - Breast neoplasms, 3289
- Receptors, hormone
  - NCF-7 breast cancer cells, 1967

**Ethanol**

- Benzo(a)pyrene phenol
  - Perfused liver, rat, 1681

**Ethanol, *N*-nitrosoiminodi-**

- Hepatoma
  - Dose-effect relationships, rat 5167

**2-Ethanthiol sulfonic acid, sodium salt**

- Cyclophosphamide
  - Urotoxicity, rat, 3688

**Ethionine**

- Carcinogenic/mutagenic/biochemical activities, 4364
- Proteins
  - Carcinogenesis, liver, rat, 4664

**Ethyl 5-amino-1,2-dihydro-3-[(*N*-methylanilino)methyl]-**

- pyrido[3,4-*b*]pyrazin-7-ylcarbamate
  - L1210 leukemia cells
    - Cytotoxicity, 791
  - P388 mouse leukemia cells
    - Cytotoxicity, 791

**Ethylphenylpropionate**

- Proteins
  - Epidermis, mouse, 4164

**Etoposide**

- Drug resistance
  - Ehrlich ascites tumor cells, 4719
- Methotrexate
  - Ehrlich ascites tumor cells, 3648
  - Drug synergism, 3648

**F****Familial diseases**

- Anemia, Fanconi's
  - Alkylating agents, 4000
- Ataxia-telangiectasia
  - Chemoresensitivity, 2247
  - Neocarzinostatin, 2247
  - Skin fibroblasts, in vitro, 3950
  - X-rays, 3950
- Bloom's syndrome
  - Cancer incidence, 3252
- Cockayne's syndrome
  - RNA synthesis, 1473
  - Ultraviolet rays, 1473
- Colon neoplasms
  - 7 $\alpha$ -Dehydroxylase, 4284
  - DNA repair, 1249
  - Enzymatic activity, colon, 4284
  - Epithelium, 4280
  - Fibroblast sensitivity, 1249
  - $\beta$ -Glucuronidase, 4284
  - Kinetics/location proliferating cells, in vivo, 4280
  - Microflora, fecal, 4284

**Melanoma**

- Sensitivity to radiation vs neoplasm incidence, human, 2909

**Retinoblastoma**

- DNA repair, 1343
- DNA replication, 1343
- 12-*O*-Tetradecanoylphorbol-13-acetate
  - Fibroblasts, high-risk cancer persons, 3870

**FANFT**

- see Formamide, *N*-(4-(5-nitro-2-furyl)-2-thiazolyl)-

**Fatty acids**

- Cachexia
  - Metabolism, cancer patient, 4293
- Carcinoma, Ehrlich ascites
  - Metabolism, rat, in vivo, 132
- Hepatoma, Morris 7777 cells
  - Cell ultrastructure/chemical composition, 4639
- L1210 leukemia cells
  - Thermotolerance, 3625
- Natural killer cells, 3596
  - Cell-mediated cytotoxicity, 3596

**Fertility**

- Antineoplastic agents
  - Spermatogenesis, mouse, in vivo 122

**Fertility (cont'd)**

- Test of 14 agents, 122

 **$\alpha$ -Fetoprotein**

- Albumin
  - Serum concentration, perinatal rat 306
- Bleomycin
  - Germ cell neoplasms, 4855
- $\alpha$ -Naphthylisothiocyanate
  - Proliferation, hepatocytes, rat 5133
- Platinum II,diamminedichloro-, *cis*
  - Germ cell neoplasms, 4855
- Vinblastine
  - Germ cell neoplasms, 4855

**Fibroadenoma**

- Proteins
  - Distribution, normal/neoplastic tissue, human, 4763

**Fibroblast growth factor**

- MIRW human melanoma cells
  - Cell proliferation/morphology 3175

**Fibronectin**

- Epithelial cells
  - Ecto- and endocervical uterine tissue, 1142
- Chemotaxis
  - Aortic cells, bovine, 2547
  - Endothelial cells, 2547
- Chondrosarcoma
  - Chondrocytes, normal/neoplastic tissue, rat, 2384
- Glioma
  - Surgical biopsies/cell lines/tumor transplants, 168
- Metastases
  - BL6 melanoma cells, 2265
  - C3H mouse fibrosarcoma cells 2265
  - PM2 fibrosarcoma cells, 2265
- Retinoic acid, 4465
- 12-*O*-Tetradecanoylphorbol-13-acetate
  - Skin neoplasms, 4465

**Fibrosarcoma**

- Amino acids
  - Protein kinetics, rat, 824
- Antigens, neoplasm
  - Ultraviolet rays, 2371
- Natural killer cells
  - Immunity, cellular, 1337
- Cholanthrene, 3-methyl-
  - Phenotypic evidence of tumor origin, mouse, 1856
- Dexamethasone
  - Cell cycle kinetics, 1686
- DNA
  - Density-separated subpopulations 4999
- Levamisole
  - T-Cell mediated cytotoxicity, mouse, 4197
- Metastases
  - 1-Butanol extraction, 2126

**Fibrosarcoma (cont'd)**

- Protein, C-reactive, 5084
- Tumor growth, mouse, 5084
- Methylprednisolone
  - Cell cycle kinetics, 1686
- Neoplasm cell heterogeneity
  - Pulmonary metastasis/growth rate/karyotyping, mouse, 1046
- Phosphatase, alkaline
  - Enzyme activity, non-neoplastic tissue, rat, 2146
- Phosphoglycerate kinase
  - Phenotypic evidence of tumor origin, mouse, 1856
- Phosphorothioic acid, *S*-(2-(3-aminopropylamino)ethyl) ester
  - Radioprotective activity, mouse 1888
- Virus, Moloney sarcoma
  - Animal tumor model, quail, 2523

**Filaments**

- Epithelium
  - Cell transformation, neoplastic 4591

**Filter elution assay**

- DNA
  - Single-strand/double-strand DNA breaks, hepatocytes, rat, 2592

**Fish**

- Src* gene
  - Phosphoproteins, 2429

**17-Fluoresceinated estrone**

- Breast neoplasms
  - Receptor binding assay, 540
- Mammary neoplasms
  - Receptor binding assay, 540

**Fluorochrome dyes**

- Rhodamine 123
  - Cell cycle kinetics, 799
  - Flow cytometry, 799

**Fluoropyrimidines**

- L1210 leukemia cells
  - Drug resistance vs enzyme activity, 965
  - Drug sensitivity vs resistance 956
- P388 mouse leukemia cells
  - Drug resistance vs enzyme activity, 965
  - Drug sensitivity vs resistance 956
- Cytosine, 1- $\beta$ -D-arabinofuranosyl-
  - L1210 leukemia cells, 3550
  - Cytotoxicity/metabolism, 3550

**Folate antagonists**

- Methotrexate
  - Drug resistance, 1655
- Trimetrexate
  - Pharmacology/toxicity, dog 1696

**Formaldehyde**

- DNA repair
  - CRL 1187 human fibroblast cells

**Formaldehyde (cont'd)**

- CRL 1187 human fibroblast cells 145
- Xeroderma pigmentosum, 145

**Formamide, *N,N*-dimethyl-**

- DLD-1 human colon carcinoma cells
  - X-rays, 30
- Colon neoplasms
  - Transplantation, heterologous 5018
- Tumor growth, mouse, 5018

**Formamide, *N*-(4-(5-nitro-2-furyl)-2-thiazolyl)-**

- Bladder neoplasms
  - Carcinogenesis, hyperplastic bladder, rat, in vivo, 65
- Saccharin
  - Carcinogenesis, hyperplastic bladder, rat, in vivo, 65

**Freund's adjuvant**

- T-Lymphocytes
  - Immune response, mouse, 3215

**Fucose**

- WI-38 fibroblast cells
  - Amino acid fucoside, 3022
- Cell transformation, viral, 3022

**G** **$\beta$ -Galactosidase**

- Mitomycin C
  - Enzyme immunoassay, serum/urine, rat, 1487

**gamma-Radiation**

- see  $\gamma$ -Rays

**Gastrin**

- Guanidine, *N*-methyl-*N*-nitro-*N*-nitroso-
  - Carcinogenic activity, rat, 1781
- Stomach neoplasms, 1781

**Gastrointestinal neoplasms**

- Carcinoid tumor
  - Cell culture, 1513

**Genes, viral**

- Alkylating agents, 3050
- Benzo(a)pyrene, 3050
- Uridine, 5-iododeoxy
  - AKR mouse embryo cells, 3050
- Mouse strain cell lines, 3050
- Virus, retro-
  - AKR mouse embryo cells, 3050

**Genetics**

- Stomach neoplasms
  - Case history of patient with *pp* blood, 5249

**Germ cell neoplasms**

- Blastocyst
  - Assay of growth regulation, mouse, 2736
- Bleomycin
  - $\alpha$ -Fetoprotein, 4855

**Germ cell neoplasms (cont'd)**

- Gonadotrophins, chorionic, 4855
- Phosphatase, alkaline
  - Serum tumor marker, human 3244
- Platinum II,diamminedichloro-, *cis*-
  - $\alpha$ -Fetoprotein, 4855
- Gonadotrophins, chorionic, 4855
- Vinblastine
  - $\alpha$ -Fetoprotein, 4855
  - Gonadotrophins, chorionic, 4855

**Glioblastoma**

- Combined modality therapy, mouse
  - Tumor model, nude mouse, 812
- Intracerebral metastases/primary brain tumors, human, 2059

**Glioma**

- Antibodies monoclonal
  - Antigens, neoplasm, 267
- Fibronectin
  - Surgical biopsies/cell lines/tumor transplants, 168
- Platinum (II),diamminedichloro-, *cis*
  - Morphology/growth rate/chemosensitivity, 992
- Protein, glial fibrillary acid
  - Surgical biopsies/cell lines/tumor transplants, 168
- Urea, 1,3-bis(2-chloroethyl)-1-nitroso
  - Morphology/growth rate/chemosensitivity, 992

**Gliosarcoma**

- Spheroids, multicellular
  - Culture methods, 1223

**Globulin, anti-thymocyte**

- Antineoplastic agents
  - Lymphomas, non-Hodgkins 2465

**Glucagon**

- Calcium
  - McA-RH 8994 rat hepatoma cells 3116

**Glucocorticoids**

- Beryllium
  - Carcinogenic mechanism, 473
- H-35 hepatoma cells, 473
- CEM-C7 human leukemia cells
  - Non-receptor mediated effects 2110
- Collagen
  - Lung, rat, 405
- Leukemia, lymphocytic
  - Receptors, hormone, 4801
- Lymphocytes
  - Cytotoxicity, in vitro, 1433
  - Leukemia, lymphocytic, 1433
- Melanoma
  - Receptors, hormone, 2238, 2242
  - Tumor growth, hamster, 2238
- Uracil, 5-fluoro-
  - Cell cycle kinetics, 1686

**Glucocorticoids (cont'd)**

- Vincristine
- Cell cycle kinetics, 1686

**Glucosamine**

- B16 melanoma cells
- Melanogenesis, 1994

**Glucose**

- Adenocarcinoma, 1505
- Adriamycin
- CHO cells, 3934
- Alanine
- Metabolism, tumor-bearing rat 4936
- Cachexia
- Metabolism, cancer patient, 4293
- Cell transformation, neoplastic
- BALB/c 3T3 A31 fibroblast cells 1809
- Energy production
- Tissue isolated neoplasms, rat 4090
- Lung neoplasms
- Metabolism, male patients, 4815
- Neuroectodermal tumors, 1505
- pH
- Range in neoplastic/normal tissue, rat, 1505

**Glucose, 2-deoxy-**

- Retinoic acid
- Swiss 3T3 fibroblast cells, 4918

**Glucose-6-phosphate dehydrogenase**

- Kidney neoplasms
- Single cell suspensions, 5262

**$\beta$ -Glucuronidase**

- Bile
- Enzyme activity, ileum/cecum/rectum, rat, 5165
- Colonic neoplasms
- Carcinogenesis, colon, rat, 331
- Familial disease
- Colon neoplasms, 4284

**Glutaminase**

- Immunosuppression
- Toxicity, mouse, 252

**$\gamma$ -Glutamyl transpeptidase**

- Bile acids
- Hepatocarcinogenesis, rat, 2426
- Carcinoma
- Enzyme activity, non-neoplastic tissue, rat, 2146
- Cell transformation, neoplastic
- Buccal pouch, hamster, 285
- Carcinoma, epidermoid, 285
- Corticosteroids
- Hepatocarcinogenesis, rat, 2426
- Enzyme activity
- Tooth/invertebral disc/hair follicle, mouse, 4143
- Fibrosarcoma
- Enzyme activity, non-neoplastic tissue, rat, 2146
- Hepatoma
- Enzyme activity, non-neoplastic tissue, rat, 2146

**$\gamma$ -Glutamyl transpeptidase (cont'd)**

- Hepatoma cells
- Enzyme activity, rat/human 1374
- Hepatocytes, rat
- Normal cultural requirements 1107
- $\alpha$ -Naphthylisothiocyanate
- Proliferation, hepatocytes, rat 5133

**$\gamma$ -Glutamyltransferase**

- Hyperplasia
- Hepatocarcinogenesis, rat, 2330

**Glutaraldehyde**

- MM46 mouse mammary carcinoma cells
- Antibody-dependent macrophage-mediated cytotoxicity, 3196

**Glutathione**

- Aflatoxin B<sub>1</sub>, 3659

**Glutathione peroxidase**

- Oxygen
- Normal/neoplastic cells; normal tissues, human, 1955

**Glutathione S-transferase**

- $\alpha$ -Angelica lactone
- Enzyme activity, esophagus/small intestine, mouse, 1205
- Benz(a)anthracene, 7,12-dimethyl-
- Metabolism, adrenal gland, rat 1479
- Benzo(a)pyrene
- Metabolism, adrenal gland, rat 1479
- Microsomes, liver, rat, 4215
- 2-tert-Butyl-4-hydroxyanisole
- Enzyme activity, esophagus/small intestine, mouse, 1205
- Coumarin
- Enzyme activity, esophagus/small intestine, mouse, 1205
- Palmitate, cafestol
- Enzyme activity, liver, mouse 1193
- Palmitate, Kahweol
- Enzyme activity, liver, mouse 1193
- Phenol, (1,1-dimethylethyl)-4-methoxy-
- Enzyme activity, esophagus/small intestine, mouse, 1205
- Phenol, *p*-methoxy-
- Enzyme activity, esophagus/small intestine, mouse, 1205

**Glycerol**

- Thermotolerance
- HeLa cells, 2171

**Glycolipids**

- Stomach neoplasms
- Case history of patient with *pp* blood, 5249

**Glycolysis, aerobic**

- Cell transformation, neoplastic
- BALB/c 3T3 A31 fibroblast cells 1809

**Glycopeptides**

- Cell differentiation
- HL-60 leukemia cells, 484
- Cell membrane
- CO 284/285 normal rat kidney cells, 39
- RRMT rat kidney tumor cells 39
- Cell transformation, neoplastic
- TRKM transformed rat kidney cells, 39
- PA1 teratocarcinoma cells
- Biochemical properties, human cells, 1749
- Tera 1 teratocarcinoma cells
- Biochemical properties, human cells, 1749

**Glycoproteins**

- Antibodies, monoclonal
- Biological markers, placenta, human, 2028
- Antigens, neoplasm
- Cell membrane, 2398
- Serum/ascites fluid, tumor-bearing rats, 2398
- Cell membrane
- Cell transformation, neoplastic 2884
- Epithelial cells
- Cell transformation, viral, 1147
- MMC-E mouse embryo cells 1147
- HRT-18 rectal adenocarcinoma cells
- Cell differentiation, neoplastic 1052
- P815 mastocytoma cells
- Proteins, viral, 3828
- Dimethyl sulfoxide
- Cell differentiation, 5222
- HL-60 leukemia cells, 5222
- Epithelium
- Normal/neoplastic breast tissue, human, 4567
- Leukemia, erythroblastic
- Cell membrane, 2884
- Leukemia, hairy cell
- Phorbol esters, 3724
- Pronase
- CCRF-CEM leukemia cells, 184
- Pteridines
- Biological marker, serum, cancer patients, 1567, 1574
- Stomach neoplasms
- Case history of patient with *pp* blood, 5249
- 12-O-Tetradecanoylphorbol-13-acetate
- Cell differentiation, 5222
- HL-60 leukemia cells, 5222
- Tunicamycin
- CCRF-CEM leukemia cells, 184



**Glycoproteins (cont'd)**

- Vinca alkaloid drug resistance 184

**Glycosaminoglycans**

- Azobenzene, 3'-methyl-4-dimethylamino-  
Normal fetal/neoplastic liver, rat 2857
- C1-S1 mouse lung tumor cells  
Culture conditions, 4975
- Epithelial cells  
Culture conditions, 4975
- WAZ-2T mammary adenocarcinoma cells  
Epithelial cells, 2207
- Heparan sulfate  
C1-S1 mouse lung tumor cells 4975

**Gonadotrophins, chorionic**

- Aromatase, 3274  
Enzyme activity, central nervous system, human, 3274
- Bleomycin, 4855
- Platinum II,diamminedichloro-, *cis* 4855
- Prostatic neoplasms  
Epidemiology, South African/  
North American black men 2074
- Vinblastine  
Germ cell neoplasms, 4855

**Graft vs host reaction**

- Skin neoplasms  
Genetic factors, 437
- Tumor models, SENCAR and BALB mice, 437

**Granulocytes**

- Mammary neoplasms  
Tumor growth-induced alterations, mouse, 1255

***Griffonia simplicifolia* I**

- Ehrlich ascites tumor cells  
Tumor growth inhibition, mouse, in vivo, 2977

**Growth**

- Cachexia  
Nutrition, 721s
- Hyperalimentation  
Assessment, child, 727s
- Nutrition  
Assessment, child, 699s
- Neoplasms, 766s
- Radiotherapy  
Nutrition, total parenteral, 754s

**Growth factors**

- Sarcoma  
Isolation, mouse embryo, 590

**Growth hormone**

- Mammary neoplasms  
Hypophysectomized rat, 35

**Guanidine, N-methyl-N-nitro-N-nitroso-**

- Adenosine cyclic 3':5'-monophosphate  
Cell transformation, neoplastic 1274
- Syrian hamster embryo cells 1274
- Cell transformation, neoplastic 4054
- Syrian hamster embryo cells 4116
- CAK pseudodiploid mouse cells  
Cell adhesion, 4054
- MM253c1 human melanoma cells  
Cytotoxicity mechanism, 1454
- DNA repair  
Fibroblast sensitivity, 1249
- DNA synthesis  
Ataxia telangiectasia, 335
- Gastrin  
Carcinogenic activity, rat, 1781
- Stomach neoplasms, 1781
- Guanosine cyclic 3':5'-monophosphate  
Cell transformation, neoplastic 1274
- Syrian hamster embryo cells 1274
- Praziquantel  
Ames test, 2692
- C3H/10T1/2 mouse embryo cells 2692
- V-79 Chinese hamster cells, 2692

**Guanine, 7-carboxymethyl-**

- Azaserine  
DNA adduct formation, pancreas, rat, 1286

**Guanine, 3-deaza-**

- L1210 leukemia cells  
Protein synthesis, 4039

**Guanine, 7-methyl-**

- Hydrazine, 1,2-dimethyl  
Hepatocarcinogenesis, hepatocytes/nonparenchymal cells, rat, 3079

**Guanine, O<sup>6</sup>-methyl-**

- Cell transformation, neoplastic  
Regenerating liver, rat, 3814
- Cimetidine  
Binding, gastrointestinal tissues, rat, 1962
- DNA, 1962
- Dimethylamine, N-nitroso-  
Hepatocarcinogenesis, mouse, in vivo, 4153
- DNA synthesis  
Hepatocarcinogenesis, mouse, in vivo, 4153
- Hydrazine, 1,2-dimethyl  
Hepatocarcinogenesis, hepatocytes/nonparenchymal cells,

**Guanine, O<sup>6</sup>-methyl- (cont'd)**

rat, 3079

**Guanines**

- Phosphoramidate mustard  
Adduct formation, 2616

**Guanosine cyclic 3':5'-monophosphate**

- Adenosine cyclic 3':5'-monophosphate  
Prognosis/monitoring preneoplastic lesions, human, 2938
- Urine levels, 2938
- Guanidine, N-methyl-N-nitro-N-nitroso-  
Cell transformation, neoplastic 1274
- Syrian hamster embryo cells 1274
- Lymphokines  
Macrophages, 3064
- Phorbol myristate acetate  
Macrophages, 3064

**Guanosine, deoxy-**

- Pyrrrolizidine alkaloids  
Carcinogenic mechanism, 8
- Retronectine, dehydro-  
Adduct formation, in vitro, 8

**Guanosine, 2-O-methyl**

- Radioimmunoassay  
Biological marker, cancer patient 5265

**H****Hair dyes**

- Bladder neoplasms  
Carcinogenic risk, 4784

**2-Haloadenosines**

- Antineoplastic agents  
Review, 3911

**Head and neck neoplasms**

- Antigens, neoplasm  
Tumor-specific rosette-forming cells, patients, 2949
- Immunity, cellular  
Tumor-specific rosette-forming cells, patients, 2949
- Piperazine, 1,4-dinitroso-  
Carcinogenesis, nasal cavity, rat 4236
- Superoxide dismutase  
Isoenzymes, 4233

**Hematoporphyrin derivative**

- BALB/3T3 fibroblast cells  
In vitro cellular effects, 2325
- L1210 leukemia cells  
Tumor localization, 1703
- PTK<sub>2</sub> rat kidney cells  
In vitro cellular effects, 2325
- Rat myocardial cells  
In vitro cellular effects, 2325

**Hematoporphyrin derivative (cont'd)**

- Drug variability
  - Letter to the editor*, 1188
- Porphyrins
  - Mechanism of action, 1703
- Sarcoma, Crocker 180
- Tumor localization, 1703

**Heme oxygenase**

- Lymphosarcoma
  - Hepatic/splenic microsomes, tumor-bearing rat, 3557

**Heparan sulfate**

- Glycosaminoglycans
  - C1-S1 mouse lung tumor cells 4975

**Hepatocytes**

- Benzo(a)pyrene
  - Human fibroblast cells, 4519
  - DNA-binding/mutagenesis, co-cultured liver cells, 4519
- Carcinogen screening, 3010
- DNA synthesis
  - Normal/neoplastic cells, liver, rat 4673
- Methapyrilene
  - Sister chromatid exchanges, 4614
- Transplantation, homologous
  - Hepatectomized rat, 3000

**Hepatoma**

- Acetamide, *N*-fluorene-2-yl-
  - Preneoplastic nodules, liver, mouse, 3220
- Alcohol
  - Epidemiology study, 5246
- Aldehyde dehydrogenase
  - Hepatocarcinogenesis, rat, 577
- Calmodulin
  - Tumor cell growth regulation 2571
- Cell membrane
  - Antigens, neoplasm, 2398
- Citrate
  - Normal/neoplastic liver mitochondria, rat, 4399
- Diet
  - Epidemiology study, 5246
- Diethylamine, *N*-nitroso-
  - Bile acids, 2426
  - Corticosteroids, 2426
- Glycosaminoglycans
  - 3'-Methyl-4-dimethylaminoazobenzene, 2857
- Meeting report
  - Normal/neoplastic liver cell culture, 2462
- Morphological classification
  - Inbred mouse, 3918
- Nasal cavity neoplasms
  - Dose-effect relationships, rat 5167
- N*-Nitrosodiethanolamine
  - Dose-effect relationships, rat 5167
- Peroxisomes
  - Hepatocarcinogenesis, rat, 259

**Hepatoma (cont'd)**

- Propionic acid, methyl-2-[4-(*p*-chlorophenyl)phenoxy]-2-methyl ester, 259
- Phosphatase, alkaline
  - Enzyme activity, non-neoplastic tissue, rat, 2146
- trans*-Retinol
  - Anti-carcinogenesis mechanism, rat, 2450
- RNA
  - Mastomys natalensis*, 1986
- Smoking
  - Epidemiology study, 5246
- Stereology
  - Qualitative analysis, preneoplastic/neoplastic liver factor, 465
- Virus, hepatitis B
  - Alcohol, 5246
  - Diet, 5246
  - Epidemiology study, 5246
  - Smoking, 5246

**Hepatoma, Morris 7777/9121**

- Uridine diphosphate-glucuronyltransferase
  - Enzyme activity, preneoplastic/neoplastic hepatocytes, 3747

**Hepatoma, Morris 7777**

- Energy production
  - Tissue isolated neoplasms, rat 4090
- Thyroxine, 3,3',5-triiodo-
  - Tumor growth, mouse, 155
- Vitamin B<sub>6</sub>
  - Normal/neoplastic, fetal/neonatal/adult liver, 3538

**Hepatoma, Novikoff ascites**

- Antigens, neoplasm
  - Tumor cells of epithelial origin 1441

**Herbicides**

- see also* Methyl viologen
- NRK rat kidney cells
  - Cytotoxicity, transformed vs non-transformed cells, 609

**Hexamethyleneimine, *N*-nitroso-**

- Metabolites, liver/lung, rat, 59

**Hexokinase**

- Retinoblastoma
  - Neoplastic/normal retina tissue, enzyme isozymes, human 4228

**Hexosaminidase**

- Enzyme activity
  - Neoplastic/hyperplastic prostate gland tissue, human, 4300

**Hirudin**

- Blood platelets
  - Neoplastic cells, human, 4348

**Histamine**

- Carcinoid tumor

**Histamine (cont'd)**

- Cell culture, 1513
- HGT-1 human gastric cancer cells
  - Biochemical/ultrastructural characteristics, 1541

**Histones**

- Aflatoxin B<sub>1</sub>
  - Binding, liver, rat, male vs female 5053

**Hodgkin's disease**

- see* Lymphoma, Hodgkin's

**Homocysteine**

- Hematopoietic stem cells
  - Amino acid requirement, normal/neoplastic cells, 3090

**Hormones, sex**

- Breast neoplasms
  - Review, 3232
- Endometrial neoplasms
  - Review, 3232
- Ovarian neoplasms
  - Review, 3232
- Stomach neoplasms
  - Cancer incidence, rat, 5181
  - Lamina muscularis mucosae 5181
- Testicular neoplasms
  - Review, 3232

**Hybridoma**

- Immunization
  - Effectiveness of new vs old cells; mouse, 1904

**Hydrazine, 1,2-dimethyl-**

- Carcinogenesis, liver, rat, in vivo
  - Cell cycle, 876
- DNA
  - Adduct formation, colon epithelial cells, rat, 382
- DNA synthesis
  - Hepatocytes, 89
- Guanine, 7-methyl-
  - Hepatocarcinogenesis, hepatocytes/nonparenchymal cells, rat, 3079
- Guanine, O<sup>6</sup>-methyl
  - Hepatocarcinogenesis, hepatocytes/nonparenchymal cells, rat, 3079

**Hydrocortisone**

- Aminoglutethimide
  - Breast neoplasms, 3397, 3405 3415, 3434, 3454
- Steroid hormones, plasma/urine, cancer patients, 3397
- Therapeutic response in metastatic disease, human, 3405
- $\delta^5$ -Androstene-3 $\beta$ ,17 $\beta$ -diol
  - Breast neoplasms, 4797
- Breast neoplasms
  - Surgical vs medical adrenalectomy, 3454
- PC-3 prostatic carcinoma cells
  - Zinc, 2

**Hydrocortisone (cont'd)**

- Cyclophosphamide
  - LS174T human colon adenocarcinoma cells, 3676
- Inflammatory response vs tumor regression, mouse, 4437
- Sarcoma, 4437

**N-Hydroxy-2-aminofluorene**

- see Hydroxylamine, N-fluorene-2-yl-

**Hydroxylamine, N-fluorene-2-yl-**

- Cytochrome P-450
  - DNA adduct formation, hepatic microsomes, 2671
- Metabolism, microsomes, liver, guinea pig, 4712
- Monooxygenase, flavin-containing
  - DNA adduct formation, hepatic microsomes, 2671

**4'-Hydroxymethyltrioxsalen**

- see Trioxsalen, 4'-hydroxymethyl-

**N-Hydroxyphenacetin O-glucuronide**

- Salmonella typhimurium*
  - Mutagenicity, 3201

**Hyperalimantation**

- Bone neoplasms
  - Assessment, child, 7135
- Cachexia
  - Metabolism, child cancer patient 727s
- Chemotherapy, 747s
- Growth
  - Assessment, child, 727s
- Neuroblastoma
  - Assessment, child, 7135
- Radiotherapy, 747s
- Surgery
  - Prognosis, child, 747s

**Hyperplasia**

- $\gamma$ -Glutamyltransferase
  - Hepatocarcinogenesis, rat, 2330

**Hypersensitivity, delayed**

- Dimethyldioctadecyl ammonium bromide
  - Antigens, neoplasm, 4959
- Immunoaugmentation agents
  - Immune response, mouse, 3514

**Hyperthermia**

- Bis(guanyldiazotane), methylglyoxal-CHO cells, 5046
- CHO cells
  - Cytotoxicity mechanism, 1059
  - DNA degradation, 4427
- HeLa cells
  - Glycerol, 2171
- L<sub>1</sub>A<sub>2</sub> cells
  - Effect of priming heat treatment; in vivo, 4190
- L1210 leukemia cells
  - Fatty acids, 3625
- Lipids
  - Cell membrane, 1716
  - Cytotoxicity, mammalian cell

**Hyperthermia (cont'd)**

- lines, 1716
- Mammary neoplasms
  - Mouse, in vivo, 4485
  - Thermotolerance, mouse, 1744
- Ornithine,  $\alpha$ -difluoromethyl-CHO cells, 5046
- Peplomycin
  - FM3A mouse mammary carcinoma cells, 4726
  - HeLa cells, 4726
- Proteins
  - L mouse cells, 1395
  - Phosphorylation, 1395
- Spheroids, multicellular
  - EMT6/Ro mouse mammary cells 93
- X-rays
  - Bone marrow, 1261

**Hypoxanthine**

- Phorbol esters
  - Cell differentiation, 484
- HL-60 leukemia cells, 484

**I****ICRF-187**

- see Propane, 1,2-di(3,5-diosopiperazin-1-yl)-

**IgG**

- Melphalan
  - BF human lymphoblastoid cells 4505

**Imidazole-4-carboxamide, 5-(3',3'-dimethyl-1-triazeno-)**

- MM253c1 human melanoma cells
  - Cytotoxicity mechanism, 1454
- Melanoma
  - Tumor growth, mouse, 838

**Imidazoles**

- Cell transformation, viral
  - 3Y1-B rat cells, 280
- Growth of transformed vs untransformed cells, 280

**Immune complexes**

- Antigens, embryo
  - Sera, human, 881
- Antigens, neoplasm
  - Sera, human, 881
- Mammary neoplasms
  - Immunoadsorption, plasma, dog 3663

**Immunity, cellular**

- Antigens, viral
  - Tumor regression, chicken, 1669
- Natural killer cells
  - Corynebacterium parvum*, 1337
  - Fatty acids, 3596
- Cyclophosphamide
  - Potential of tumor rejection 2211
- Head and neck neoplasms
  - Tumor-specific rosette-forming cells, patients, 2949

**Immunity, cellular (cont'd)**

- T-Lymphocytes
  - Antigens, neoplasm, 3607
- Lymphoma, Hodgkins
  - K-562 leukemia cells, 2063
- Macrophages
  - Cytotoxicity, tumor cells, 2227
  - Lipopolysaccharides, 2227
- Virus, Epstein-Barr
  - Natural vs antibody-dependent cell-mediated cytotoxicity 1208

**Immunization**

- Hybridoma
  - Effectiveness of new vs old cells; mouse, 1904

**Immunoaugmentation agents**

- Hypersensitivity, delayed
  - Immune response, mouse, 3514

**Immunoglobulins**

- Immunosuppression
  - Tumor-bearing mouse, 416
- Lymphoma, non-Hodgkin's
  - Cell surface markers vs prognosis 349
- Lymphoma, small cleaved follicular center cell
  - Cell surface markers vs prognosis 349

**Immunoperoxidase assay**

- Colon neoplasms
  - Antigens, neoplasm, 4820
- Rectal neoplasms
  - Antigens, neoplasm, 4820

**Immunosuppression**

- Adenosine deaminase
  - Non-dividing cell populations 324
- Antigens, viral
  - Tumor regression, chicken, 1669
  - Virus, avian sarcoma, 1669
- Asparaginase
  - Toxicity, mouse, 252
- Cytosine, 1- $\beta$ -D-arabinofuranosyl-
  - Transplantation, heterologous 3696
  - Tumor model, mouse, 3696
- Dietary factors
  - Review, 737s
- Dietary zinc
  - Review, 737s
- Glutaminase
  - Toxicity, mouse, 252
- Immunoglobulins
  - Membrane-bound, tumor, mouse 416
- Lymphocytes
  - Tumor-bearing mouse, 416
- T-Lymphocytes
  - Cytotoxicity, sponge matrix cells 397
- Virus, avian leukosis
  - Concanavalin A, 3617

**Immunotherapy**

- Abrin
  - Adjuvant activity, mouse, 2872
- Antibodies
  - S107 myeloma cells, 2622
  - Immune cytotoxicity after drug exposure, 2622
- Bacillus Calmette-Guerin*
  - Anti-tumor activity, guinea pig 2544
  - Skin neoplasms, 2544
- Diphtheria toxin
  - Response in immune vs nonimmune patients, 2054
- Fibrosarcoma
  - T-Cell mediated cytotoxicity, mouse, 4197
- Freund's adjuvant
  - Immune response, mouse, 3215
- Leukemia L1210
  - Letter to the editor, 4263
  - Tumor growth, mouse, 4263
- Lymphocytes
  - Autologous human tumor cell lysis, 913
- Mammary neoplasms
  - Immunoadsorption, plasma, dog 3663
- Protein, C-reactive
  - Tumor growth, mouse, 5084
- PS-K
  - Antitumor immunity, rat, 5176
- Staphylococcus aureus*
  - Mammary neoplasms, 4970
  - Tumor regression, rat, 4970
- Vaccine
  - Meth-A tumor cells, 2872
- Indoleacetic acid, 5-hydroxy-**
  - Carcinoid tumor
    - Cell culture, 1513
- Indomethacin**
  - Benzidine, 3,5,3',5'-tetramethyl-
    - Production of colored product 2567
  - Bladder neoplasms
    - Cell-mediated cytotoxicity, mouse 5038
  - Ornithine decarboxylase
    - Carcinogenesis, skin, mouse 3941
    - Ultraviolet rays, 3941
  - Phorbol esters
    - Cell-mediated cytotoxicity suppression, 3601
    - Skin of ear, guinea pig, in vitro 1975
  - Phorbol myristate acetate
    - Macrophages, 3064
  - Polyinosinic-polycytidylic acid
    - Cell-mediated cytotoxicity, mouse 5038
  - Prostaglandin E<sub>2</sub>
    - 12-*O*-Tetradecanoylphorbol-13-acetate, 2841

**Inosine 5'-monophosphate dehydrogenase**

- 5-Carbamoyl-1*H*-imidazol-4-yl piperonylate, 1098

**Inosine monophosphate:L-aspartate ligase**

- see Adenylosuccinate synthetase

**Insulin**

- Breast neoplasms
  - Receptors, hormone, 1137
  - Sera, human, 1137
- Cachexia
  - Metabolism, cancer patients 721s
  - Tumor-bearing rat, 3642
- PC-3 prostatic carcinoma cells
  - Zinc, 2

**Interferon**

- BALL 1 leukemia cells, 1312
- B16 melanoma cells
  - Mechanisms of anticellular activity, 869
- CCRF-HSB-2 leukemia cells, 1312
- Daudi leukemia cells, 1312
- K562 human leukemia cells, 1312
- Natural killer cells
  - Stimulator/antiproliferative effects 1312
- Neoplastic cells, human
  - Antiproliferative activity, 4948
- WISH human amnion cells, 1312
  - Stimulator/antiproliferative effects 1312
- Doxorubicin, 4'-deoxy-
  - T348 human colon carcinoma cells, 3789
- Hypersensitivity, delayed
  - Immunoaugmentation agents 3514
- Natural killer cells
  - Cytotoxicity of cells from cancer patients, 2480
- Prostaglandins
  - GM258, 3209
  - HEC-1, 3209
  - RSa human cells, 3209
- 12-*O*-Tetradecanoylphorbol-acetate
  - Natural killer cells, 1468
  - Macrophages, 1468

**Iron**

- Metabolism, hepatocarcinogenesis, rat
  - Ultrastructural study, liver, 2298

**Isoenzymes**

- Pyruvate kinase
  - Normal/benign/malignant breast tissue, 888
- Superoxide dismutase
  - Head and neck neoplasms, 4233

**N<sup>6</sup>-(6<sup>2</sup>-Isopentyl)adenosine**

- see Adenosine, N<sup>6</sup>-(8<sup>2</sup>-isopentyl)-

**5-Isoxazoleacetic acid, L-(α,5,5)-α-amino-3-chloro-4,5-dihydro-**

- Antineoplastic agents
  - Phase I clinical trial, 3892

**K****Keratinocytes**

- 12-*O*-Tetradecanoylphorbol-13-acetate
  - Virus, SV40, 4600

**Keratins**

- Breast neoplasms
  - Distribution, normal/neoplastic tissue, human, 4763
- Epithelium
  - Carcinogenesis, bladder, mouse 4098
- Phorbol esters
  - Reversible/permanent hyperplasia, epidermis, mouse, 1517
- Proteins
  - Reversible/permanent hyperplasia, epidermis, mouse, 1517
- 12-*O*-Tetradecanoylphorbol-13-acetate
  - Epidermis, mouse, 4176
  - Papilloma, 4176
- Tumor promoters
  - Epidermis, mouse, 4164

**Kidney neoplasms**

- Amyloidosis
  - Amyloid fibril structure, 1600
- Arterial embolization
  - Natural killer cells, 3880
  - Immune response, patients, 3880
- Diethylstilbestrol
  - Hypophysectomized rat, 1015
- Enteral vs total parenteral feeding, child
  - Growth, 766s
  - Treatment tolerance, 766s
- Glucose-6-phosphate dehydrogenase
  - Single cell suspensions, 5262

**Killer cells**

- see Natural killer cells(in cell section)

**L****Lactation**

- Mammary neoplasms
  - Benz(a)anthracene, 7,12-dimethyl-1355
  - Urea, *N*-methyl-*N*-nitroso-, 1355
- X-rays
  - Mammary neoplasms, 50

**Lactic acid**

- Energy production
  - Tissue isolated neoplasms, rat 4090

**Lamina muscularis mucosae**

- Stomach neoplasms
  - Hormones, sex, 5181



**Laminin**

- Metastases
  - BL6 melanoma cells, 2265
  - C3H mouse fibrosarcoma cells, 2265
  - PM2 fibrosarcoma cells, 2265

**Lectins**

- Griffonia simplicifolia* I
  - Tumor growth inhibition, mouse, in vivo, 2977
- Lymphocytes
  - Autologous human tumor cell lysis, 913
- 12-O-Tetradecanoylphorbol-13-acetate
  - DNA synthesis, 1630
  - Macrophages, 1630

**Lentianin**

- Hypersensitivity, delayed
- Immunoaugmentation agents, 3514

**Leucovorin**

- Methotrexate
  - Bone marrow, 1604
  - Hematopoietic stem cells, 1604
  - MOLT-3 lymphoblast cells, 1655
  - Clinical trial, 3896
  - Colony-forming units, mouse, 530
  - Drug resistance, 1655
  - Drug toxicity, human, 4824
  - Phase I clinical trial, 4824

**Leukemia, erythro-**

- Antibodies, monoclonal
  - Leukemia-cell targeting, mouse, in vivo, 44
- Antigens, adult
  - Cell membrane antigen expression, 4625
  - Cell transformation, viral, 4625
- Antigens, fetal
  - Cell membrane antigen expression, 4625
  - Cell transformation, viral, 4625
- Sister chromatid exchanges
  - Hematopoietic organs, mouse, in vivo, 4753

**Leukemia, erythroblastic**

- Cell membrane
  - Cell transformation, neoplastic, 2884
- Glycoproteins, 2884
- Sugar chains, 2884

**Leukemia, hairy cell**

- Phorbol esters
  - Cell adhesion, 3724
- Glycoproteins, 3724

**Leukemia L1210**

- Abrin
  - Adriamycin, 2152
- Aspartic acid, *N*-(phosphonacetyl)-
  - Pyrimidine ribonucleotides, 4525
- Cyclophosphamide

**Leukemia L1210 (cont'd)**

- Carbamic acid, diethyldithio-, 4490
- Daunorubicin
  - Ricin, 2152
- Immunotherapy
  - Letter to the editor, 4263
  - Tumor growth, mouse, 4263
- Neuraminidase
  - Cell membrane, 4263
- Phenethylbiguanide
  - Bis(guanyldihydrazone), methylglyoxal-, 3592
  - Valinomycin, 3592
- Platinum(II), diamminedichloro-, *cis*
  - Ricin, 2152
- Pyrazofurin
  - Pyrimidine ribonucleotides, 4525
- Thymidine
  - 3'-Chloroethylnitrosurea analog, 1624
- Vincristine
  - Ricin, 2152

**Leukemia, lymphoblastic**

- Adenine, 9- $\beta$ -D-arabinofuranosyl-
  - Coformycin, 2'-deoxy-, 2092
  - 3884
- Antigens, neoplasm
  - Antibodies, monoclonal, 457
- Chromosome aberrations
  - Karyotyping and clinical characteristics, 2918
  - Karyotyping, long-term survivors, 4289
  - Prognosis, 2918
- DNA polymerase  $\alpha$ 
  - Cytosine, 1- $\beta$ -D-arabinofuranosyl, 5'-triphosphate, 649
- Methotrexate
  - Prophylactic craniospinal radiation therapy, child, 674
- Sister chromatid exchange, 4289
  - Child patients in remission, 2906
  - DNA repair, 2906

**Leukemia, lymphocytic**

- Antibodies, monoclonal
  - Antigens, neoplasm, 1927
- Glucocorticoids
  - Lymphocytes, 1433
- Receptors, hormone
  - Glucocorticoid, 4801
  - Prognosis, child patients, 4801

**Leukemia, myeloblastic**

- Antibodies, monoclonal
  - Antigens, neoplasm, 1927
- DNA polymerase  $\alpha$ 
  - Cytosine, 1- $\beta$ -D-arabinofuranosyl, 5'-triphosphate, 649

**Leukemia, myelocytic**

- Antibodies, monoclonal
  - Antigens, neoplasm, 1927
- Sister chromatid exchanges
  - Normal/leukemic/blast phase

**Leukemia, myelocytic (cont'd)**

- bone marrow cells, 3240
- Virus, simian sarcoma
  - Case report, 681
  - Serological evidence of infection, 681

**Leukemia P388**

- Adenine, 9- $\beta$ -D-arabinofuranosyl-2-fluoro-
  - Comparison of two dose schedules, mouse, 2587
- Thymidine
  - 3'-Chloroethylnitrosurea analog, 1624

**Leukemia(s)**

- 4'-(9-Acridinylamino)methanesulfon-*m*-anisidide
  - Phase II clinical trial, child patient, 1579
- Ascorbic acid, sodium salt, 1331
- Cytosine, 1- $\beta$ -D-arabinofuranosyl-
  - High-dose therapy, 1587
- Deoxycytidine kinase
  - Biological marker, serum cancer patients, 2514
  - Enzyme activity, serum, mouse, 2514
- Deoxythymidine kinase
  - Biological marker, serum cancer patients, 2514
  - Enzyme activity, serum, mouse, 2514
- Dopamine, 6-hydroxy-, 1331
- Liposomes
  - Therapeutic effectiveness, mouse, 1740
- Purine ribonucleoside monophosphates
  - Bone marrow, 1326
  - Lymphocytes, 1326
- Pyrimidine ribonucleoside monophosphates
  - Bone marrow, 1326
  - Lymphocytes, 1326
- 12-O-Tetradecanoylphorbol-13-acetate
  - Cell differentiation, 3843
- WR-2721
  - Activity, AKR mouse, 4330
  - Radioprotection, 4330
- X-rays
  - Tumor model, Fischer rat, 433

**Leukemia, T-cell**

- D-Mannosamine
  - Oleate, sodium, 2867

**Levamisole**

- Fibrosarcoma
  - T-Cell mediated cytotoxicity, mouse, 4197

**Levan**

- Hypersensitivity, delayed
- Immunoaugmentation agents, 3514

**Levodopa**

- Dietary amino acids
- Tumor growth, mouse, 3056

**Lipid peroxide**

- Adriamycin
- Ascorbate, 309
- Cardiomyopathy, guinea pig, 309

**Lipids**

- Anthracyclines
  - Peroxidation, heart/liver mitochondria, rat, 3574
- Cachexia
  - Metabolism, cancer patients, 721s
- L1210 leukemia cells
  - Cell membrane, 2715
  - Electron spin resonance analysis, 2715
- Hyperthermia
  - Cell membrane, 1716
  - Cytotoxicity, mammalian cell lines, 1716

**Lipofuscin**

- Propionic acid, methyl-2-[4-(*p*-chlorophenyl)phenoxy]-2-methyl ester
- Hepatocarcinogenesis, rat, 259

**Lipopolysaccharides**

- Cell differentiation
  - M5076 mouse reticulum sarcoma cells, 1850
  - Tumor behavior in vivo vs in vitro, 1850
- Macrophages
  - Cytotoxicity, tumor cells, 2227

**Lipoproteins, high density**

- A-204 human rhabdomyosarcoma cells
  - Cell growth, 3704
- A-431 human carcinoma cells
  - Cell growth, 3704
- HS-703t human colon carcinoma cells
  - Cell growth, 3704
- MCF-7 human breast carcinoma cells
  - Cell growth, 3704
- Transferrin
  - Human neoplasm cells, 3704

**Lipoproteins, VLD**

- Carcinoma, Ehrlich ascites
- Metabolism, rat, in vivo, 132

**Liposomes**

- Adriamycin
  - Cardiotoxicity, mouse, 4734
- Doxorubicin
  - Cardiotoxicity, mouse, 1817
- Lymphokines
  - Melanoma, 496
  - Tumor growth, mouse, 496
- Macrophages
  - Muramyl dipeptide, 161
  - Muramyl dipeptide
    - Melanoma, 496

**Liposomes (cont'd)**

- Tumor growth, mouse, 496
- Phagocytosis
  - Capillary transport, mouse, in vivo, 1412
- Polycytidylic acid
  - Therapeutic effectiveness, mouse, 1740
- Protein, C-reactive
  - Tumor growth, mouse, 5084

**Lithocholic acid**

- DNA
  - L1210 leukemia cells, 2792
  - Strand breaks in cells, cell organelles, isolated DNA/nucleoids, 2792

**Lung neoplasms**

- Antibodies, monoclonal
  - Antigens, neoplasm, 150
  - 3187
  - Target cell specificity, 409
- Antigens, neoplasm
  - Isolation and purification, 843
- Aryl hydrocarbon hydroxylase
  - Enzyme activity, cryopreserved cells, 5030
  - Lymphocytes, 5030
- Aspartic acid, *N*-(phosphonacetyl)-
  - Pyrimidine ribonucleotides, 4525
- Bone marrow
  - Drug toxicity effects, 4270
  - Transplantation, homologous, 4270
- Cachexia
  - Metabolism, male patients, 4815
- 3041 mouse adenocarcinoma cells
  - Pathological/physiological properties, 1881
- L-Dopa decarboxylase
  - Neuroendocrine differentiation, 1361
- Drug synergism
  - 2 Drug/3 drug therapy, mouse, 2963
  - Statistical modeling, 2963
- Glucose
  - Metabolism, male patients, 4815
- Immune complex isolation
  - Pleural effusions, human, 292
- Metastases
  - Mechanism of hematogenous metastasis, mouse, 1898
  - Protein, C-reactive, 5084
  - Tumor growth, mouse, 5084
- $\beta$ -Naphthoflavone
  - Alveolar type II cells, 4658
  - Clara cells, 4658
- Neoplasm cell heterogeneity
  - Cell cycle kinetics, human, 2499
  - Chemotherapy monitoring, 2499
- $\alpha$ -Ornithine, difluoromethyl-
  - Growth inhibition, in vitro, 3070
- Proteins
  - Metabolism, male patients, 4815
- Pyrazofarin
  - Pyrimidine ribonucleotides, 4525

**Lung neoplasms (cont'd)**

- Radionuclides
  - Carcinogenesis, lung epithelium, hamster, 1405
  - Polonium, 1405

**Luteinizing hormone**

- Weight loss
  - Cancer patients prior to therapy, 2495

**Luteinizing releasing hormone**

- Prostatic neoplasms
  - Epidemiology, South African/North American black men, 2074

**Lymphocytes**

- Adenosine, deoxy-
  - Non-dividing cell populations, 324
- Adenosine, 2'-deoxy-
  - S-Adenosylhomocysteine hydrolyase, 3822
  - Mechanism of action, 3822
- Adenosine 5'-triphosphate
  - 5'-Nucleotidases, 4321
- Antigens, embryonic
  - Cytolysis of embryo fibroblasts vs tumor growth inhibition, 784
- Aryl hydrocarbon hydroxylase
  - Enzyme activity, cryopreserved cells, 5030
  - Lung neoplasms, 5030
- Diethylstilbestrol
  - Sister chromatid exchanges, 893
- Glucocorticoids
  - Cytotoxicity, in vitro, 1433
  - Leukemia, lymphocytic, 1433
- Immunosuppression
  - Tumor-bearing mouse, 416
- Lectins
  - Autologous human tumor cell lysis, 913
- Leukemia(s)
  - Purine ribonucleoside monophosphates, 1326
  - Pyrimidine ribonucleoside monophosphates, 1326
- Rhodamine 123
  - Cell cycle kinetics, 799
  - Flow cytometry, 799

**B-Lymphocytes**

- Antibodies, monoclonal
  - Antigens, neoplasm, 1927
- M10 melanoma cells
  - Cell hybrids, 3971
- Mammary neoplasms
  - Tumor growth-induced alterations, mouse, 1255
- Uracil, 5-fluoro-
  - Chemosensitivity, 3753

**T-Lymphocytes**

- Antigens, neoplasm
  - Cell-mediated cytotoxicity, 3607
- Colony forming unit-spleen cells
  - Bone marrow, 1922
  - EMT-6 mouse mammary tumor

**T-Lymphocytes (cont'd)**

- cells, 1922
- Freund's adjuvant
  - Immune response, mouse, 3215
- Immunosuppression
  - Cytotoxicity, sponge matrix cells 397
- Mammary neoplasms
  - Tumor growth-induced alterations, mouse, 1255
- 4 $\alpha$ -Phorbol-12,13-didecanoate
  - Alloimmune cytotoxicity, 5023
- 12-*O*-Tetradecanoylphorbol-13-acetate
  - Alloimmune cytotoxicity, 5023
- Uracil, 5-fluoro-
  - Chemosensitivity, 3753

**Lymphokines**

- Cell migration
  - P815 mastocytoma cells, 2135
  - Macrophages, 2135
- Liposomes
  - Tumor growth, mouse, 496
- Macrophages
  - Guanosine cyclic 3':5'-monophosphate, 3064

**Lymphoma, Hodgkin's**

- Antineoplastic agents
  - Review, 4309
- K-562 leukemia cells
  - Natural killer cells, 2063
  - Immunity, cellular, 2063
- Lysozymes
  - Immune response, human, 1595
- Phagocytosis
  - Immune response, human, 1595
- RNA, transfer
  - Cell transformation, neoplastic 3887
  - Pathogenesis, Hodgkin's cells 3887

**Lymphoma(s)**

- Antigens, viral
  - Athymic mouse, 198
  - Neoplasm transplantation, heterologous, 198
- Cell cycle kinetics
  - Cell lines AKR mouse, 2813
- Chemotherapy
  - Enteral vs total parenteral feeding 774s
  - Treatment tolerance/survival, cancer patient, 774s
- Chromosome aberrations
  - Growth and characteristics, 1368
- Cytosine, 1- $\beta$ -D-arabinofuranosyl-
  - High-dose therapy, 1587
- Virus, murine leukemia
  - Virus relationship to tumor cells, mouse, 4650
  - X-rays, 4650

**Lymphoma, small cleaved follicular center cell**

- see also Lymphoma, non-Hodgkin's
- Immunoglobulins

**Lymphoma, small cleaved follicular center cell (cont'd)**

- Cell surface markers vs prognosis 349

**Lymphomas, non-Hodgkin's**

- see also Lymphoma, small cleaved follicular center cell
- 4'-(9-Acridinylamino)methanesulfon-*m*-anisidine
  - Phase II clinical trial, child patient, 1579
- Antibodies, monoclonal
  - Antigens, neoplasm, 1927
- Antineoplastic agents
  - Antibodies, monoclonal, 2465
  - Globulin, anti-thymocyte, 2465
- Immunoglobulins
  - Cell surface markers vs prognosis 349
- Polyamines
  - Letter to the editor, 2097
  - Urinary excretion, treated patients 2097

**Lymphoproliferative diseases**

- Cysteamine *S*-phosphate
  - Hydrolysis, sera, normal/cancer patients, 3507
- Phosphatase, alkaline
  - Hydrolysis, sera, normal/cancer patients, 3507

**Lymphosarcoma**

- Cytochrome P-450
  - Hepatic/splenic microsomes, tumor-bearing rat, 3557
- Electron transport system
  - Hepatic/splenic microsomes, tumor-bearing rat, 3557
- Heme oxygenase
  - Hepatic/splenic microsomes, tumor-bearing rat, 3557
- Virus, Moloney sarcoma
  - Animal tumor model, quail, 2523

**Lysozymes**

- Lymphoma, Hodgkin's
  - Immune response, human, 1595

**M** **$\alpha$ -Macroglobulin**

- Isolation/characterization, plasma, mouse
- Cytostatic activity, 1788

**Macrophages**

- Adriamycin
  - Cytotoxicity, 3851
- Antigens, neoplasm
  - Breast neoplasms, 4985
- Chemotaxis
  - Prognosis, 2489
  - Skin window test, cancer patients 2489
- Corynebacterium parvum*
  - Ehrlich ascites carcinoma cells 2198
- Interferon

**Macrophages (cont'd)**

- 12-*O*-Tetradecanoylphorbol-13-acetate, 1468
- Lipopolysaccharides
  - Cell differentiation, 1850
  - Cytotoxicity, tumor cells, 2227
- Liposomes
  - Melanoma, 496
  - Metastases, 496
- Lymphokines
  - Cell migration, 2135
  - Guanosine cyclic 3':5'-monophosphate, 3064
- Muramyl dipeptide
  - Liposomes, 161
- Phorbol myristate acetate
  - Guanosine cyclic 3':5'-monophosphate, 3064
- Pyran
  - Ehrlich ascites carcinoma cells 2198
  - Tumoricidal activity vs DNA reduction, 2198
- Sister chromatid exchanges
  - Carbamates, vinyl/allyl, 2165
- 12-*O*-Tetradecanoylphorbol-13-acetate
  - Cell differentiation, 1850
  - Lectins, 1630

**Magnesium**

- Calmodulin
  - Normal/regenerating/neoplastic liver, rat, 2571
- DNA synthesis
  - Cell population density/passage frequency, 1761
  - BALB/c 3T3 fibroblast cells 1761

**Maleic anhydride divinyl ether**

- Hypersensitivity, delayed
- Immunoaugmentation agents 3514

**Mammary neoplasms**

- Adriamycin
  - Oxygen, 4921
- Antineoplastic agents
  - Androstenedione, 4-hydroxy- 3360
- Benz(a)anthracene, 7,12-dimethyl-
  - Lactation, 1355
- Bone marrow
  - Tumor growth-induced alterations, mouse, 1255
- Casein
  - RNA, messenger, 1355
- Epithelial cells
  - Morphological characteristics, in vivo growth, mouse, 5196
- Rama 25 rat mammary tumor cells
  - Morphological characteristics, in vivo growth, mouse, 5196
- Cyclophosphamide
  - Oxygen, 4921
  - Polyadenylic-polyuridylic acid

**Mammary neoplasms (cont'd)**

- Polyadenylic-polyuridylic acid 4706
- Diet
  - Tumor growth, rat, 4943
- DNA, viral
  - Genotypic variance, 1154
  - Tumor growth, mouse, 1154
- Estrogens
  - Hormone dependency, 3510
- 17-Fluoresceinated estrone
  - Receptor binding assay, 540
- Growth hormone
  - Hypophysectomized rat, 35
- Hyperthermia
  - Mouse, in vivo, 4485
  - Thermotolerance, mouse, 1744
- Immunotherapy
  - Immunoadsorption, plasma, dog 3663
- Mammary tumor factor
  - Cell adhesion, 5117
  - Cell growth, rat, 5117
- Peroxidase
  - Enzyme activity, 4562
  - Mammary gland cell subpopulations, mouse, 4562
- Prolactin
  - Hypophysectomized rat, 35
- Proteinase
  - Isolation and characterization 1026
- Receptors, hormone
  - Estrogens, 3492
  - Pathology of tumors vs receptor content, dogs, 2255
  - Prolactin, 3492
  - Receptor characteristics, male mouse, 2434
- Retinamide, *N*-(4-hydroxyphenyl)-
  - Ovariectomized/normal rat, 508
- Retinyl acetate
  - Tumor growth prevention, rat 2639
  - Tumor growth, rat, 903
- RNA, transfer
  - Methyltransferase, 5004
- RNA transferase
  - Enzyme activity, normal/neoplastic mammary gland tissue, rat, 4979
- Selenium
  - Carcinogenesis, rat, 4954
- Spheroids, multicellular
  - EMT6/Ro mouse mammary cells, 93
- Staphylococcus aureus*
  - Immunoadsorption, plasma, dog 3663
  - Tumor regression, rat, 4970
- Testosterone
  - Hormone dependency, 3510
  - Metabolism, in vitro, 3510
- Thyroid gland hormones
  - Tumor incidence, mouse, 4553
- Uracil, 5-fluoro-
  - Testosterone, 2 $\alpha$ -methylhydro-, propionate, 4408

**Mammary neoplasms (cont'd)**

- Urea, *N*-methyl-*N*-nitroso-
  - Lactation, 1355
- Verapamil
  - Blood circulation, 3944
- Virus, mouse mammary tumor
  - Antigens, neoplasm, 4325
  - Antigens, viral, 4325
- X-rays
  - Oxygen, 4921
  - Tumor model, Fischer rat, 433
  - Virgin/pregnant/lactating rat, 50

**Mammary tumor factor**

- Mammary neoplasms
  - Cell adhesion, 5117
  - Cell growth, rat, 5117

**D-Mannosamine**

- Oleate, sodium
  - ALL leukemia cells, 2867
  - HSB-2 leukemia cells, 2867
  - MLT human leukemia cells 2867
  - MOLT-4 leukemia cells, 2867

**Mannozym**

- Hypersensitivity, delayed
  - Immunoaugmentation agents 3514

**Marcellomycin**

- HL-60 leukemia cells
  - Cell differentiation, 2651

***Mastomys natalensis***

- RNA
  - Hepatoma, 1986
- RNA, messenger
  - Hepatoma, 1986

**Medroxyprogesterone acetate**

- Aminoglutethimide
  - Breast neoplasms, 3442

**Medulloblastoma**

- Combined modality therapy, mouse
  - Tumor model, nude mouse, 812

**Meeting report**

- Development/Use of Immunological Techniques to Detect Individual Exposure to Carcinogens 5236
- DNA
  - Methylation/alkylation and role in carcinogenesis, 2099
- Escape of Tumor Cells from Immune Controls, 1608
- Fifth Annual Interdisciplinary Cancer Research Workshop, 4867
- Hepatoma
  - Normal/neoplastic liver cell culture, 2462
- RNA, transfer
  - Neoplastic/normal tissue, 2099
- Sixth Meeting European Association for Cancer Research, 1159

**Melanocyte-stimulating hormone**

- Theophylline

**Melanocyte-stimulating hormone (cont'd)**

- B16 melanoma cells, 2786
- Melanogenesis, in vitro, 2786

**Melanoma**

- Antibodies, monoclonal
  - Antigens, neoplasm, 150 267
  - M14 human melanoma cells 3142
- Antibodies, neoplasm
  - Complement-dependent microcytotoxicity assay, serum, human, 2216
- Antigens, histocompatibility
  - Alabama/sunbelt U.S.A. residents 4276
  - Epidemiology, 4276
- Antigens, neoplasm
  - Distribution in normal/fetal/neoplastic tissues, 583
  - Identification/purification, 2310
- Benz(a)anthracene, 7,12-dimethyl-
  - Tumor model, mouse, 3157
- Cell membrane
  - Surface macromolecules and autotocatabolism, 2232
- Colony-forming cells
  - Metastases, 4606
  - Self-renewal capacities, 4606
- MM253c1 human melanoma cells
  - Cytotoxicity mechanism, 1454
- Natural killer cells
  - Immunity, cellular, 1337
  - Lymphocyte infiltration, 363
  - Prognosis, 363
- SEKI human melanoma cells
  - Isolation/characterization, nude mouse, 1549
- Chlorpromazine
  - Metabolism/distribution, hamster/mouse, 556
- Copper
  - DNA, 3783
  - Strand-breaks/cross-links in cell lines, 3783
- Dietary amino acids
  - Tumor growth, mouse, 3056
- L-Dopa
  - DNA, 3783
  - Strand-breaks/cross-links in cell lines, 3783
- Drug synergism
  - 2 Drug/3 drug therapy, mouse 2963
  - Statistical modeling, 2963
- Glucocorticoids
  - Receptors, hormone, 2238
  - Tumor growth, hamster, 2238
- Glucosamine
  - Tunicamycin, 1994
- Imidazole-4-carboxamide, 5-(3,3'-dimethyl-1-triazeno)-
  - Tumor growth, mouse, 838
- Liposomes
  - Tumor growth, mouse, 496



**Melanoma (cont'd)**

- Metastases
    - 1-Butanol extraction, 2126
    - Cathepsin B, 980
    - Lysosomal enzyme activity, mouse, 980
  - Methanesulphonic acid, methyl ester
    - DNA repair, 84
  - Oxygen
    - Drug sensitivity/plating efficiency 1005
    - Soft agar, 1005
  - Platinum (II),diamminedichloro-, *cis*-
    - Intracerebral metastases/primary brain tumors, human, 2059
  - Receptors, hormone
    - Glucocorticoids, 2242
  - Thiouracil
    - Cell targeting for therapy, mouse 5126
  - $\alpha$ -Tocopherol
    - B16 melanoma cells, 550
    - L-cells fibroblasts, 550
    - Growth inhibition vs morphological alterations, 550
  - Tunicamycin
    - Melanogenesis, 1994
  - Ultraviolet rays
    - DNA repair, 84
    - Sensitivity to radiation vs neoplasm incidence, human, 2909
  - Urea, 1-(2-chlorethyl)-3-(4-methylcyclohexyl)-1-nitroso-
    - Tumor growth, mouse, 838
  - Virus, retro-
    - Virus production vs tumor immunity, beige mouse, 2562
- Melphalan**  
see Methanesulfonic acid, methyl ester
- Menstrual cycle**  
Breast neoplasms  
Risk factors, 3286
- Mepacrine**  
Phospholipase A<sub>2</sub>  
Enzyme activity, skin, mouse 2841  
12-*O*-Tetradecanoylphorbol-13-acetate, 2841
- Mercaptopurine**  
see Purine, 6-mercapto
- Mesnum**  
see 2-Ethanethiol sulfonic acid, sodium salt
- Mesothelioma**  
Amyloidosis  
Amyloid fibril structure, 1600
- Metal ions**  
DNA repair  
*Saccharomyces cerevisiae*, 929

**Metals**

- Anti-tumor effects
    - Review, 756s
- Metastases**
- Actin
    - K-1735 melanoma cells, 5183
    - UV-2237 mouse fibrosarcoma cells, 5183
  - Bone neoplasms
    - Assessment, child, 7135
    - Hyperalimantation, 7135
  - Cell membrane
    - 1-Butanol extraction, 2126
    - B16-F1 melanoma cells, 2126
    - MCA-F sarcoma cells, 2126
  - B16 melanoma cells
    - Brain meninges colonization, mouse, 4631
    - Cultured cells/skin neoplasms/lung metastases, mouse, 2770
    - Neoplasm cell heterogeneity 2770
  - Lewis lung carcinoma cells
    - Mechanism of hematogenous metastasis, mouse, 1898
  - Natural killer cells
    - Corynebacterium parvum*, 1337
  - Fibronectin
    - BL6 melanoma cells, 2265
    - C3H mouse fibrosarcoma cells 2265
    - PM2 fibrosarcoma cells, 2265
  - Fibrosarcoma
    - Protein, C-reactive, 5084
    - Tumor growth, mouse, 5084
  - Laminin
    - BL6 melanoma cells, 2265
    - C3H mouse fibrosarcoma cells 2265
    - PM2 fibrosarcoma cells, 2265
  - Liposomes
    - Tumor growth, mouse, 496
  - Melanoma
    - Cathepsin B, 980
    - Colony-forming cells, 4606
    - Lysosomal enzyme activity, mouse, 980
    - Neoplasm cell heterogeneity
    - Cell suspensions from 38 tumors/metastases, 4086
    - Neoplastic cells
      - Microradioassay, 660
      - Tumor model, mouse, 660
    - Ouabain
      - Tumor model, chick embryo 4018
    - Rhabdomyosarcoma
      - Neoplasm cell heterogeneity 3776
    - Vinculin
      - K-1735 melanoma cells, 5183
      - UV-2237 mouse fibrosarcoma cells, 5183
- Methanesulfonic acid, methyl ester**  
Burkitt's lymphoma  
DNA, 897

**Methanesulfonic acid, methyl ester (cont'd)**

- Interstrand cross-linking vs cytotoxicity, 897
  - MM253c1 human melanoma cells
    - Cytotoxicity mechanism, 1454
  - DNA repair
    - Fibroblast sensitivity, 1249
    - Xeroderma pigmentosum, 860
  - DNA synthesis
    - Ataxia telangiectasia, 335
  - L5178Y leukemia cells
    - Mechanism of drug efflux, 987
  - IgG
    - BF human lymphoblastoid cells 4505
  - Immunity, cellular
    - Monocyte-mediated cytotoxicity 1692
  - Melanoma
    - DNA repair, 84
    - Salmonella typhimurium*
    - Mutagenicity/teratogenicity, 3106
  - Zinc
    - CHO cells, 2980
    - Drug toxicity, 2980
- Methanol, methoxy-onn-azoxy-, acetate**  
Pyrazole
  - Carcinogenesis inhibition, 2985
  - Normal/regenerating liver/colon, rat, 2985
- Selenium
  - Carcinogenesis inhibition, 2985
  - Normal/regenerating liver/colon, rat, 2985
- Methanol, methyl-onn-azoxy-**  
Pyrazole
  - Carcinogenic activity, gastrointestinal/skin/kidney, rat, 1774
- Methapyriline**  
Sister chromatid exchanges
  - Bone marrow cells, 4614
  - CHO cells, 4614
  - V79 Chinese hamster lung fibroblast cells, 4614
  - Hepatocytes, 4614
  - Normal/neoplastic liver cells, co-cultured, in vitro, 4614
- Methionine**  
Hematopoietic stem cells
  - Amino acid requirement, normal/neoplastic cells, 3090
- Methotrexate**  
Antineoplastic agents
  - Metabolism, testis, rat, 1617
- Hematopoietic stem cells
  - Colony-forming units, mouse 530
- L5178Y/Asn-murine leukemic cells
  - Cytotoxicity, 1641
- MOLT-3 lymphoblast cells
  - Drug resistance, 1655
- Citrovorum factor
  - Bone marrow, 1604
  - Hematopoietic stem cells, 1604

- Methotrexate (cont'd)**  
 Colony-forming units, mouse 530  
 High-dose therapy, case report 1604  
**Deuterium**  
 Tumor growth, mouse, 1125  
**Etoposide**  
 Ehrlich ascites tumor cells, 3648  
 Drug synergism, 3648  
**Folate antagonists**  
 Drug resistance, 1655  
**Leucovorin**  
 Clinical trial, 3896  
 Drug toxicity, human, 4824  
 Phase I clinical trial, 4824  
**Leukemia, lymphoblastic**  
 Prophylactic craniospinal radiation therapy, child, 674  
**Metoprine**  
 L1210 leukemia cells, 924  
 M5076 mouse ovarian tumor cells 924  
 Comparative drug sensitivity, 924  
**Probenecid**  
 Ehrlich ascites tumor cells, 2532  
 Poly- $\gamma$ -glutamyl derivatives, 2532  
**Purines**  
 CCRF-CEM leukemia cells, 5159  
 L1210 leukemia cells, 5159  
 PMC-22 human melanoma cells 5159  
**Teniposide**  
 Ehrlich ascites tumor cells, 3648  
 Drug synergism, 3648  
**Tetrahydrofolate, 5-formyl-**  
 CCRF-CEM leukemia cells, 502  
 LAZ-007 transformed B-lymphocyte cells, 502  
**Tetrahydrofolate, 5-methyl-**  
 CCRF-CEM leukemia cells, 502  
 LAZ-007 transformed B-lymphocyte cells, 502  
**Thymidine**  
 Drug toxicity, human, 4824  
 Phase I clinical trial, 4824  
**Uracil, 5-fluoro-**  
 Breast neoplasms, 2081  
 MCF-7 breast cancer cells, 5015  
 47-DN human mammary carcinoma cells, 2081  
 Clinical trial, 3896  
**Vincristine**  
 Ehrlich ascites tumor cells, 2532  
 Poly- $\gamma$ -glutamyl derivatives, 2532  
**cis- $\beta$ -4-Methoxy-benzoyl- $\beta$ -bromacrylate**  
 see Cytembena  
**Methyl-2-[4-(*p*-chlorophenyl)phenoxy]-2-methylpropionate**  
 see Propionic acid, 2-[4-(*p*-chlorophenyl)phenoxy]-2-methyl, methyl ester  
**3'-Methyl-4-dimethylamino-azobenzene**  
 see Azobenzene, 3'-methyl-4-dimethylamino-
- 3-Methyl-1-phenyltriazene**  
 see Triazene, 3-methyl-1-phenyl-
- Methyl viologen**  
 see also Herbicides  
 NRK rat kidney cells  
 Cytotoxicity, transformed vs non-transformed cells, 609  
 Superoxide radical, 609  
**Methylazoxymethanol**  
 see Methanol, methoxy-onn-azoxy-
- 3-Methylhistidine**  
 Proteins  
 Muscles, cancer patient, 4807  
**Methylprednisolone**  
 Fibrosarcoma  
 Cell cycle kinetics, 1686  
**Methyltransferase**  
 RNA, transfer  
 Mammary neoplasms, 5004  
 Tetrahydrofolate, 5-formyl-CCRF-CEM leukemia cells, 502  
 Tetrahydrofolate, 5-methyl-CCRF-CEM leukemia cells, 502  
**Metoprine**  
 Methotrexate  
 L1210 leukemia cells, 924  
 M5076 mouse ovarian tumor cells 924  
 Comparative cell drug sensitivity 924  
**Mezerein**  
 HeLa cells  
 Phosphatidylcholine, 1980  
 Phospholipase C, 1980  
 Proteins  
 Epidermis, mouse, 4164  
**Michler's ketone**  
 see Benzamine, 4,4'-methylenebis(*N,N*-dimethyl)-
- Miconazole**  
 3Y1-B rat cells  
 Growth of transformed vs untransformed cells, 280  
**Microfilaments**  
 Phorbol esters  
 Lymphocyte cap formation, 2115  
**Microflora, intestinal**  
 Familial disease  
 Colon neoplasms, 4284  
 Nitrogenous compounds  
 N-Oxidation, rats, in vivo, 3654  
**Microtubules**  
 Epithelium  
 Cell transformation, neoplastic 4591  
 Hyperthermia  
 CHO cells, 1059  
 Proton relaxation  
 Human breast cancer cells, 4124  
 Nuclear magnetic resonance 4124
- Misonidazole**  
 Radiosensitizers  
 V79 hamster fibroblast cells 4358  
**Mitochondria**  
 Aflatoxin B<sub>1</sub>  
 Carcinogenic mechanism, liver, rat, in vivo, 1876  
 Transcription/translation, in vivo 1876  
**Mitomycin C**  
 MM46 mouse mammary carcinoma cells  
 Antibody-dependent macrophage-mediated cytotoxicity, 3196  
**DNA**  
 Free radical formation, cell nuclei, rat, 1078  
**DNA repair**  
 CHO cells, 3106  
 **$\beta$ -Galactosidase**  
 Enzyme immunoassay, serum/urine, rat, 1487  
**Monamine oxidase**  
 Nitrosamine, *N*-dimethyl-Metabolism, liver, rat, 3761  
**Monooxygenase, flavin-containing**  
 Hydroxylamine, *N*-fluoren-2-yl-DNA adduct formation, hepatic microsomes, 2671  
**Monosaccharides**  
 Proteases  
 P815 mastocytoma cells, 2135  
**MOPC-315 tumors**  
 see Plasmacytoma  
**Morpholine, *N*-nitroso-2,6-dimethyl-**  
 Metabolism, rat/hamster/guinea pig 54  
 Pancreatic neoplasms  
 Metabolism, liver/pancreas, hamster, 5089  
**Muramyl dipeptide**  
 Liposomes  
 Macrophages, 161  
 Tumor growth, mouse, 496  
**Mycotoxins**  
 Aflatoxin  
 Neoplastic human/mouse cells 3810  
**Myeloma**  
 Hybridoma  
 Immunization, 1904  
**Myeloma MOPC-315**  
 Polyethylene glycol  
 Antitumor cytotoxicity, tumor-bearer spleen cells, 2537  
**Myosin**  
 Breast neoplasms  
 Distribution, normal/neoplastic tissue, human, 4763

## N

- Nafoxidine**  
Receptors, hormone  
Breast neoplasms, 4449
- $\beta$ -Naphthoflavone**  
Benzo(a)pyrene hydroxylase  
Alveolar type II cells, 4658  
Clara cells, 4658  
Cytochrome P-450  
Antibody-enzyme reaction, mouse  
1798  
Phenol, (1,1-dimethylethyl)-4-  
methoxy-  
DNA adduct formation, stomach-  
/lung/liver, mouse, in vivo  
1199
- $\alpha$ -Naphthylisothiocyanate**  
 $\alpha$ -Fetoprotein  
Proliferation, hepatocytes, rat  
5133  
 $\gamma$ -Glutamyl transpeptidase  
Proliferation, hepatocytes, rat  
5133
- Nasal cavity neoplasms**  
Hepatoma  
Dose-effect relationships, rat  
5167
- Neocarzinostatin**  
Ataxia-telangiectasia  
Chemosensitivity, 2247  
Chromosome aberrations  
PA2 human fibroblast cells, 4584  
DNA repair  
PA2 human fibroblast cells, 4584
- Neoplasm cell heterogeneity**  
Breast neoplasms  
Adenosine cyclic 3':5'-  
monophosphate phosphodiesterase, 1661  
Microanalysis, 1661  
B16 melanoma cells  
Metastases, 2770  
Cholanthrene, 3-methyl  
Carcinogenesis, B6 and A/J  
phenotype mouse, 3486  
Fibrosarcoma  
Pulmonary metastasis/growth  
rate/karyotyping, mouse, 1046  
Glioma  
Morphology/growth rate/  
chemosensitivity, 992  
Lung neoplasms  
Cell cycle kinetics, human, 2499  
Chemotherapy monitoring, 2499  
Mammary neoplasms  
DNA, viral, 1154  
Genotypic variance, 1154  
Tumor growth, mouse, 1154  
Metastases  
Cell suspensions from 38 tumors/
- Neoplasm cell heterogeneity (cont'd)**  
metastases, 4086  
Pancreatic neoplasms  
Cell separation/characterization  
3729  
Rhabdomyosarcoma  
Metastases, 3776  
X-rays  
DLD-1 human colon carcinoma  
cells, 2556  
LX1 human lung carcinoma cells  
2556
- Neoplasm transplantation, heterologous**  
Lymphoma  
Antigens, viral, 198
- Neoplasms**  
Nutrition  
Enteral vs total parenteral feeding, child, 766s  
Growth, 766s  
Prognosis, child, 747s  
Treatment tolerance, 766s
- Nerve growth factor**  
Cyclamate  
Sensory ganglia, chick embryo  
429  
Neurinoma, 1038  
Phenol  
Sensory ganglia, chick embryo  
429  
Saccharin  
Sensory ganglia, chick embryo  
429  
12-O-Tetradecanoylphorbol-13-  
acetate  
SH-SY5Y human neuroblastoma  
cells, 5067  
Neurite outgrowth, 5067
- Neural crest tumors**  
Neuroblastoma, C-1300 murine  
Biological characterization, tumor  
model, mouse, 3719
- Neuraminidase**  
Leukemia L1210  
Cell membrane, 4263  
Proteases  
P815 mastocytoma cells, 2135
- Neurinoma**  
Nerve growth factor, 1038  
Urea, N-ethyl-N-nitroso-  
Transplacental/postnatal ad-  
ministration, rat, 1038
- Neuroblastoma**  
Ascorbic acid, sodium salt, 1331  
Carboxyl-O-methyltransferase  
Enzyme characterization, mouse,  
in vivo, 4433  
Chromosome aberrations  
Homogeneously staining regions  
1838  
Dopamine, 6-hydroxy-, 1331  
Hyperalimination  
Assessment, child, 7135  
12-O-Tetradecanoylphorbol-13-  
acetate  
Neurite outgrowth, 5067
- Neuroblastoma (cont'd)**  
acetate  
Neurite outgrowth, 5067
- Neuroblastoma, C-1300 murine**  
Neural crest tumors  
Biological characterization, tumor  
model, mouse, 3719
- Neuroectodermal tumors**  
Antibodies monoclonal  
Antigens, neoplasm, 267
- pH**  
Glucose, 1505  
Microelectrode measurement  
1498  
Range in neoplastic/normal tis-  
sue, rat, 1505  
Range in neoplastic tissue, rat  
1498
- Neutrons**  
12-O-Tetradecanoylphorbol-13-  
acetate  
C3H/10T1/2 mouse embryo cells  
477
- Nickel carbonate**  
Cell nucleus  
DNA, 3544  
Single-strand breaks/interstrand  
cross-links, 3544
- Nickel sulfide**  
see also Sulfides, metal  
Phagocytosis  
CHO cells, 2729  
Video microscopy  
CHO cells, 2729
- Nicotinamide**  
DNA synthesis  
Ataxia telangiectasia, 335
- Nicotinamide adenine nucleotide phos-  
phate**  
Anthracyclines  
Cardiotoxicity, 3574
- Nicotinamide, 6-amino-**  
Urea, 1,3-bis(2-chloroethyl)-1-  
nitroso-  
L1210 leukemia cells, 4382  
Drug synergism, 4382
- Nicotine, 1'-demethyl-1'-nitroso-**  
Metabolites  
Binding, nasal region, rat, 2877
- Nitrates**  
N-Oxidation  
Urine, rat, in vivo, 3654
- N-[4-(5-Nitro-2-furyl)-2-  
thiazolyl]formamide**  
MBT mouse bladder cells  
Carcinogenesis, 807
- 5-Nitroacenaphthene**  
see Acenaphthene, 5-nitro-
- Nitrofurans**  
DNA synthesis  
Urothelial cells, 3974

- Nitrogen mustard**  
WR-2721  
Radioprotection, 4330
- Nitrogenous compounds**  
Microflora, intestinal  
N-Oxidation, rats, in vivo, 3654
- 4-Nitroquinoline 1-oxide**  
DNA repair  
Fibroblast sensitivity, 1249  
DNA synthesis  
Ataxia telangiectasia, 335
- Nitroreductase**  
1,3,4-Thiazole, 2-amino-4-(5-nitro-2-furyl)-  
Microsomes, liver, rat, 4479  
RNA, transfer, 4479
- Nitrosamine, N-diethyl-**  
DNA synthesis  
Hepatocytess, 89  
Spermidine *N*-acetyltransferase  
Enzyme activity, liver, rat, 2990
- Nitrosamine, N-dimethyl**  
DNA synthesis  
Regenerating liver, rat, 3814  
Monamine oxidase  
Metabolism, liver, rat, 3761  
Spermidine *N*-acetyltransferase  
Enzyme activity, liver, rat, 2990
- N-Nitrosamines**  
Brain neoplasms  
Epidemiological study, child  
5240  
Prenatal exposure, 5240  
DNA  
Single-strand/double-strand DNA  
breaks, hepatocytes, rat, 2592  
Meeting report, 4867  
Metabolism, esophagus, rat/human,  
in vitro, 1307
- N-Nitroso-2,6-dimethyl-morpholine**  
see Morpholine, *N*-nitroso-2,6-  
dimethyl-
- N-Nitroso-N-hexamethyleneimine**  
see Hexamethyleneimine, *N*-nitroso-
- N-Nitrosodiethanolamine**  
see Ethanol, *N*-nitrosoiminodi-
- N-Nitrosoglycocholic acid**  
TK6 human lymphoblast cells  
Mutagenicity assay, 2601  
*Salmonella typhimurium*  
Mutagenicity assay, 2601
- N-Nitrosomethyl-N-butylamine**  
Methylation/ethylation vs car-  
cinogenicity  
Metabolism, rat, 2105
- N-Nitrosomethyl(4-methylbenzyl)amine**  
see Benzylamine, *N*-methyl-(4-  
methyl)-*N*-nitroso
- N-Nitrosomethyl(2-phenylethyl)amine**  
Methylation/ethylation vs car-  
cinogenicity
- N-Nitrosomethyl(2-phenylethyl)amine (cont'd)**  
Metabolism, rat, 2105
- N-Nitrosomethylbenzylamine**  
see Benzylamine *H*-methyl-*N*-  
nitroso-
- N-Nitrosomethylethylamine**  
Methylation/ethylation vs car-  
cinogenicity  
Metabolism, rat, 2105
- N-Nitrososornicotine**  
see Nicotine, 1'-demethyl-1'-nitroso-
- N-Nitrosotaurocholic acid**  
TK6 human lymphoblast cells  
Mutagenicity assay, 2601  
*Salmonella typhimurium*  
Mutagenicity assay, 2601
- Nuclear magnetic resonance**  
Cell membrane  
Normal/neoplastic/transformed  
lymphocytes, 2270  
Cell transformation, neoplastic  
Normal/neoplastic/transformed  
lymphocytes, 2270  
Microtubules  
Proton relaxation, 4124
- 5'-Nucleotidases**  
Adenosine 5'-triphosphate  
Neoplastic cells, human, 4321  
Lymphocytes, 4321
- Nutrition**  
Anti-tumor effects  
Review, 756s  
Assessment, child, 7135  
Cachexia  
Growth, 721s  
Muscle wasting, 721s  
Chemotherapy  
Enteral vs total parenteral feeding  
774s  
Gastrointestinal-related side-  
effects, child, 729s  
Treatment tolerance/survival,  
cancer patient, 774s  
Epiandrosterone, dehydro-  
Immune response, mouse/human  
737s  
Growth  
Assessment, child, 699s  
Immune response, mouse/human  
Review, 737s  
Neoplasms  
Enteral vs total parenteral fee-  
ding, child, 766s  
Growth, 766s  
Prognosis, child, 747s  
Treatment tolerance, 766s  
Radiotherapy  
Gastrointestinal-related side-
- Nutrition (cont'd)**  
effects, child, 729s  
Review  
Anti-tumor effects, 756s  
Surgery  
Gastrointestinal-related side-  
effects, child, 729s
- Nutrition, total parenteral**  
Radiotherapy  
Growth, 754s  
Radiation side-effects, child, 754s
- O**
- Obesity**  
Androgens  
Sex-hormone metabolism, 3281  
Aromatase  
Cancer predisposition, humans  
3281  
Enzyme activity, human, 3307  
Breast neoplasms  
Estrone, 3289  
Estrogens  
Sex-hormone metabolism, 3281
- Oleate, sodium**  
D-Mannosamine  
ALL leukemia cells, 2867  
HSB-2 leukemia cells, 2867  
MLT human leukemia cells  
2867  
MOLT-4 leukemia cells, 2867
- Oncogenes**  
Cell transformation, neoplastic  
*Xiphophorus*, 4222
- Ornithine decarboxylase**  
Asbestos  
HTE-B hamster tracheal epitheli-  
al cells, 3669  
Indomethacin  
Carcinogenesis, skin, mouse  
3941  
Ultraviolet rays, 3941  
Phorbol esters  
Skin of ear, guinea pig, in vitro  
1975  
12-*O*-Tetradecanoylphorbol-13-  
acetate  
Enzyme activity, skin, mouse  
2841  
Prostaglandin E<sub>2</sub>, 2841  
Triamcinolone acetonide  
Carcinogenesis, skin, mouse  
3941  
Ultraviolet rays, 3941  
L-Tryptophan  
Enzyme activity, bladder, mouse  
3587
- Ornithine, α-difluoro-**  
Polyamines  
Cell differentiation, 3046  
Granulocyte-macrophage colony-  
forming cells, 3046



- $\alpha$ -Ornithine, difluoromethyl-**  
 SCC human lung carcinoma cells  
 Growth inhibition, *in vitro*, 3070  
 Hyperthermia  
 CHO cells, 5046  
 Platinum(II),diamminedichloro, *cis*-  
 9L rat brain tumor cells, 1296  
 Cytotoxicity, 1296  
 Polyamines  
 Carcinoma, oat cell, 3070
- Osteopetrosis**  
 Virus, avian leukosis  
 Immunosuppression, 3617
- Osteosarcoma**  
 see Sarcoma
- Ouabain**  
 Metastases  
 Tumor model, chick embryo  
 4018
- Ovarian hormones**  
 Retinyl acetate  
 Tumor growth, rat, 903
- Ovarian neoplasms**  
 Adriamycin  
 Phase I clinical trial i.p. adminis-  
 tration, 4265  
 Antibodies, monoclonal  
 Antigens, neoplasm, 1650  
 Hormones, sex  
 Review, 3232
- Oxygen**  
 Adriamycin  
 Mammary neoplasms, 4921  
 Ataxia telangiectasia  
 Skin fibroblasts, *in vitro*, 3950  
 Cachexia  
 Metabolism, cancer patient, 4293  
 Carcinoma, Vx-2  
 Enzyme activity, tumor-bearing  
 rabbit, 4233  
 Catalase  
 Normal/neoplastic cells; normal  
 tissues, human, 1955  
 Cyclophosphamide  
 Mammary neoplasms, 4921  
 Glutathione peroxidase  
 Normal/neoplastic cells; normal  
 tissues, human, 1955  
 Melanoma  
 Drug sensitivity/plating efficiency  
 1005  
 Soft agar, 1005  
 Reserpine, diethylamino-  
 Cytotoxicity, mouse, *in vivo*  
 3028  
 Spheroids, multicellular  
 EMT6/Ro fibroblast cells, 237  
 Growth in spinner flasks vs static  
 media, 237  
 Superoxide dismutase  
 Normal/neoplastic cells; normal  
 tissues, human, 1955  
 X-rays  
 Antineoplastic agents, 4921
- Oxygen (cont'd)**  
 Mammary neoplasms, 4921
- Ozone layer**  
 Ultraviolet rays  
 Photocarcinogenesis, mouse  
 2796
- P**
- Palmitate, cafestol**  
 Glutathione *S*-transferase  
 Enzyme activity, liver, mouse  
 1193
- Palmitate, Kahweol**  
 Glutathione *S*-transferase  
 Enzyme activity, liver, mouse  
 1193
- Pancreatic neoplasms**  
 Antigens, neoplasm  
 Distribution, normal/fetal/  
 neoplastic pancreatic tissue  
 601  
 Antineoplastic agents  
 Tumor model, Syrian hamster  
 2666  
 Azaserine  
 Tumor model, rat, 19  
 Carcinoma, acinar  
 Cell separation/characterization  
 3729  
 Estrogen-binding protein, pancreatic  
 tissue  
 Isolation/characterization, 633  
 Morpholine, *N*-nitroso-2,6-dimethyl-  
 Metabolism, liver/pancreas, ham-  
 ster, 5089  
 Neoplasm transplantation, heterolo-  
 gous  
 Tumor growth, mouse, 2705  
 Retinoids  
 Anti-tumor activity, rat, 19
- Papaverine**  
 Prostaglandins  
 Carcinogenesis, prostate gland,  
 mouse, 3682
- Papilloma**  
 12-*O*-Tetradecanoylphorbol-13-  
 acetate  
 Keratins, 4176
- Paraquat**  
 see Methyl viologen
- Peplomycin**  
 Anesthetics  
 FM3A mouse mammary car-  
 cinoma cells, 4726  
 HeLa cells, 4726  
 Hyperthermia  
 FM3A mouse mammary car-  
 cinoma cells, 4726  
 HeLa cells, 4726
- Pergolide mesylate**  
 Mammary neoplasms  
 Hypophysectomized rat, 35
- Peroxidase**  
 Mammary neoplasms  
 Enzyme activity, 4562  
 Mammary gland cell subpopula-  
 tions, mouse, 4562
- Peroxisomes**  
 Propionic acid, 2-[4-(*p*-  
 chlorophenyl)phenoxy]-2-  
 methyl, methyl ester  
 Hepatocarcinogenesis, rat, 259
- pH**  
 Adenocarcinoma  
 Glucose, 1505  
 Range in neoplastic/normal tis-  
 sue, rat, 1505  
 Neuroectodermal tumors  
 Glucose, 1505  
 Microelectrode measurement  
 1498  
 Range in neoplastic/normal tis-  
 sue, rat, 1505  
 Range in neoplastic tissue, rat  
 1498
- Phagocytosis**  
 Cell transformation, neoplastic  
 Syrian hamster ovary cells, 2757  
 Liposomes  
 Capillary transport, mouse, *in*  
 vivo, 1412  
 Lymphoma, Hodgkin's  
 Immune response, human, 1595  
 Muramyl dipeptide  
 Liposomes, 161  
 Nickel sulfide  
 CHO cells, 2729  
 Sulfides, metal  
 Syrian hamster ovary cells, 2757
- Phenacetin**  
 Metabolites, liver, hamster/rat  
 Mutagenicity, 3201
- Phenanthrenes; polymethylated**  
 12-*O*-Tetradecanoylphorbol-13-  
 acetate  
 Carcinogenesis, skin, mouse  
 4045
- Phenethylbiguanide**  
 Bis(guanyldiazotone)-, 4,4'-  
 diacetyldiphenylurea-  
 Drug synergism, 3592  
 Bis(guanyldiazotone)-, methylglyox-  
 al-  
 Drug synergism, 3592  
 Leukemia L1210, 3592  
 Valinomycin  
 Drug synergism, 3592  
 Leukemia L1210, 3592
- Phenobarbital**  
 see Barbituric acid, 5-ethyl-5-phenyl-
- Phenol**  
 Nerve growth factor  
 Sensory ganglia, chick embryo  
 429

- Phenol, (1,1-dimethylethyl)-4-methoxy- $\alpha$ -Angelica lactone**  
DNA adduct formation, stomach-/lung/liver, mouse, in vivo 1199
- Benzo(a)pyrene**  
DNA adduct formation, stomach-/lung/liver, mouse, in vivo 1199
- Enzyme activity, liver, mouse/rat 2609
- Glutathione S-transferase**  
Enzyme activity, esophagus/small intestine, mouse, 1205
- $\beta$ -Naphthoflavone**  
DNA adduct formation, stomach-/lung/liver, mouse, in vivo 1199
- Phenol, *p*-methoxy-**  
Glutathione S-transferase  
Enzyme activity, esophagus/small intestine, mouse, 1205
- Phenylalanine**  
Carbidopa  
Tumor growth, mouse, 3056
- Levodopa  
Tumor growth, mouse, 3056
- Phleomycin**  
DNA repair  
*Saccharomyces cerevisiae*, 929
- Phorbol-12,13-dibutyrate**  
Ascorbic acid  
Binding, brain cortex, calf, in vitro, 1227
- Phorbol-12,13-didecanoate**  
Cell transformation, neoplastic  
Syrian hamster embryo cells 1233
- Syrian hamster epidermal cells  
Deacylation, skin, in vivo/cell, in culture, 3098
- T-Lymphocytes  
Alloimmune cytotoxicity 5023
- Phorbol esters**  
Benzoyl tyrosine ethyl ester  
Lymphocyte cap formation, 2115
- Calmodulin  
Lymphocyte cap formation, 2115
- Cell differentiation  
HL-60 leukemia cells, 484
- EL-4 mouse lymphoma cells  
T-cell growth factor, 1676
- Natural killer cells  
Cell-mediated cytotoxicity suppression, 3601
- EL-4 lymphoma cells, 3601
- MPC-11 myeloma cells, 3601
- Concanavalin A  
Lymphocyte cap formation, 2115
- Cytochalasin D  
Lymphocyte cap formation, 2115
- HeLa cells  
Phosphatidylcholine, 1980
- Phorbol esters (cont'd)**  
Phospholipase C, 1980
- Keratinization**  
Reversible/permanent hyperplasia, epidermis, mouse, 1517
- Leukemia, hairy cell**  
Cell adhesion, 3724
- Glycoproteins, 3724
- Prostaglandins**  
Skin of ear, guinea pig in vitro 1975
- Phorbol myristate acetate**  
Fibrosarcoma cells  
Cell adhesion, 190
- Walker 256 carcinosarcoma cells  
Cell adhesion, 190
- Macrophages**  
Guanosine cyclic 3':5'-monophosphate, 3064
- Retinoic acid**  
Swiss 3T3 fibroblast cells, 4918
- Phosphatase, acid**  
Arginine, L-homo-MOPC 104E mouse myeloma cells, 1072
- MEL mouse erythroleukemia cells  
Cell differentiation, 1300
- Phosphatase, alkaline**  
Antibodies, monoclonal  
Phosphatase polymorphism, 2444
- Arginine, L-homo-MOPC 104E mouse myeloma cells, 1072
- Brain neoplasms**  
Isolation of liver, bone, kidney isoenzyme, 563
- Butyric acid, sodium salt**  
HRT-18 rectal adenocarcinoma cells, 4540
- Carcinoma**  
Enzyme activity, non-neoplastic tissue, rat, 2146
- Fibrosarcoma**  
Enzyme activity, non-neoplastic tissue, rat, 2146
- Germ cell neoplasms**  
Serum tumor marker, human 3244
- Hepatoma**  
Enzyme activity, non-neoplastic tissue, rat, 2146
- Lymphoproliferative diseases**  
Hydrolysis, sera, normal/cancer patients, 3507
- Phosphatidylcholine**  
Mezerein  
HeLa cells, 1980
- Phorbol esters**  
HeLa cells, 1980
- Phosphoglycerate kinase**  
Fibrosarcoma  
Phenotypic evidence of tumor origin, mouse, 1856
- Phospholipase C**  
Blood platelets  
Neoplastic cells, human, 4348
- Mezerein**  
HeLa cells, 1980
- Phorbol esters**  
HeLa cells, 1980
- N-(Phosphonacetyl)-L-aspartate**  
see Aspartic acid, N-(phosphonacetyl)-
- Phosphoproteins**  
*Src* gene  
Isolation/characterization, teleostean fish, 2429
- Phosphoramidate mustard**  
Cyclophosphamide, 4-hydroperoxy-Catalysis conditions in vitro, 830
- Cyclophosphamide, 4-hydroxy-Catalysis conditions in vitro, 830
- Metabolism scheme, 830
- DNA**  
Adduct formation, 2616
- Phosphorothioic acid, S-(2-(3-aminopropylamino)ethyl) ester**  
X-rays  
Radioprotective activity, mouse 1888
- Photoradiation**  
Meeting report, 4867
- Ultraviolet rays  
Photocarcinogenesis, mouse 2796
- Piperazine, 1,4-dinitroso-**  
Head and neck neoplasms  
Carcinogenesis, nasal cavity, rat 4236
- Pituitary gland hormones**  
Aromatase, 3274  
Enzyme activity, central nervous system, human, 3274
- Cell differentiation, neoplastic  
HFP human fetal pituitary cells 2336
- Diethylstilbestrol  
Kidney neoplasms, 1015
- Pituitary neoplasms**  
17 $\beta$ -Estradiol  
Tumor growth, rat, 1492
- Receptors, hormone  
Estrogen, 1492
- Placenta**  
Antibodies, monoclonal  
Biological markers, placenta human, 2028
- Aromatase**  
Enzyme inhibition, 3322, 3327 3334
- Isolation and characterization 3299
- Estrogens**  
Biosynthesis mechanism, 3327

**Plasmacytoma**

- Cyclophosphamide
  - Immune response, 974
  - Tumor growth, mouse, 974

**Plasminogen activator**

- Retinoic acid
  - UCT-Mel 1 human melanoma cells, 5191
- Vitamin A
  - UCT-Mel 1 human melanoma cells, 5191

**Plasminogens**

- Breast neoplasms
  - Activator analysis, 219

**Platinum(II), 4'-carboxyphthalato(1,2-diaminocyclohexane)-**

- Antineoplastic agents
  - Phase I, clinical trial and pharmacokinetics, 4831

**Platinum(II),diamminedichloro-, cis- and trans-**

- KB cells
  - Cytotoxicity, diffusion chamber assay, in vivo, rat, 1769

**Platinum(II),diamminedichloro-, cis-**

- Brain neoplasms
  - Intracerebral metastases/primary brain tumors, human, 2059
  - Pharmacokinetics, central nervous system, human, 2474

**Burkitt's lymphoma**

- DNA, 897
  - Interstrand cross-linking vs cytotoxicity, 897

**MBT mouse bladder cells**

- Tumor-cloning assay, 807

**Circadian rhythm**

- Renal toxicity, rat, 945, 950

**Dithiocarbamate, diethyl-**

- HA-1 Chinese hamster cells

**3074****DNA repair, 3074****DNA repair****CHO cells, 3106****Drug resistance**

- Ehrlich ascites tumor cells, 4719

**Escherichia coli**

- DNA repair, 2416
  - Temperature effects on cytotoxicity, 2416

**Etoposide**

- Ehrlich ascites tumor cells, 4719

 **$\alpha$ -Fetoprotein, 4855****Glioma**

- Morphology/growth rate/chemosensitivity, 992

**Gonadotrophins, chorionic**

- Germ cell neoplasms, 4855

**Nucleic acids**

- Cell membrane, 3565
- S-180 mouse sarcoma cells, 3565
- Electrophoresis, 3565

**Ornithine,  $\alpha$ -difluoromethyl-**

- 9L rat brain tumor cells, 1296
- Cytotoxicity, 1296

**Platinum(II),diamminedichloro-, cis- (cont'd)**

- Ricin
  - Leukemia L1210, 2152
  - S-180 mouse sarcoma cells, 3565
  - Electrophoresis, 3565

**Platinum(II),diamminedichloro-, trans-**

- DNA repair
  - CRL 1187 human fibroblast cells 145
  - Xeroderma pigmentosum, 145

**Polonium**

- Radionuclides
  - Carcinogenesis, lung epithelium, hamster, 1405

**Polyadenylic-polyuridylic acid**

- Cyclophosphamide
  - Drug synergism, 4706
  - Mammary neoplasms, 4706

**Polyamines**

- Granulocyte-macrophage colony-forming cells
  - Cell differentiation, 3046
- Lymphomas, Non-Hodgkin's
  - Letter to the editor, 2097
  - Urinary excretion, treated patients 2097
- Nitrosamine, *N*-diethyl-
  - Enzyme activity, liver, rat, 2990
- Nitrosamine, *N*-dimethyl-
  - Enzyme activity, liver, rat, 2990
- $\alpha$ -Ornithine, difluoromethyl-
  - Carcinoma, oat cell, 3070
- Urine levels, cancer patients, 3248

**Polycyclic aromatic hydrocarbons**

- Cyclophosphamide
  - LS174T human colon adenocarcinoma cells, 3676
- Cytochrome P-450, 3676
- Cytochrome P-450
  - Mutagenic activation, 1620
  - Salmonella typhimurium*, 1620
- Enzyme activity
  - Liver microsomes, human, 4875
- Prostaglandin synthetase
  - Mutagenic activation, 1620
  - Salmonella typhimurium*, 1620

**Polycytidylic acid**

- Liposomes
  - Therapeutic effectiveness, mouse 1740

**Polyethylene glycol**

- Myeloma MOPC-315
  - Antitumor cytotoxicity, tumor-bearer spleen cells, 2537

**Polyinosinic-polycytidylic acid**

- Indomethacin
  - Cell-mediated cytotoxicity, mouse 5038

**Polynucleotides**

- Cyclophosphamide
  - Trapping of DNA metabolites 2996

**Polypeptides**

- see Proteins

**Polyriboinosinic-polycytidylic acid**

- Hypersensitivity, delayed
- Immunoaugmentation agents 3514

**Porphyrins**

- Hematoporphyrin derivative
  - Mechanism of action, 1703

**Potassium chromate**

- DNA repair
  - CRL 1187 human fibroblast cells 145
  - Xeroderma pigmentosum, 145

**Praziquantel**

- Acridine, 2-methoxy-6-chloro-9-[3-(2-chloroethyl)aminopropylamino]-, Ames test, 2692
- C3H/10T1/2 mouse embryo cells 2692
- V-79 Chinese hamster cells, 2692
- Guanidine, *N*-methyl-*N*-nitro-*N*-nitroso-, Ames test, 2692
- C3H/10T1/2 mouse embryo cells 2692
- V-79 Chinese hamster cells, 2692

**Presidential Address**

- 75 years-Cancer Research, 3471

 **$\alpha$ Pro3**

- see Antibodies, monoclonal

**Probenecid**

- Methotrexate
  - Ehrlich ascites tumor cells, 2532
  - Poly- $\gamma$ -glutamyl derivatives, 2532

**Procarbazine**

- Brain neoplasms
  - X-rays, 812

**Progesterone**

- Breast neoplasms
  - Cytoplasm/nucleus, breast tissue, male patient, 4812
- Receptors, hormone
  - Breast neoplasms, 359
  - MCF-7 breast cancer cells, 139
  - DNA synthesis, 359
  - Endometrial carcinoma, 1322
  - Mammary neoplasms, 2434
  - Receptor characteristics, male mouse, 2434

**Prolactin**

- CAMA-1 human breast cancer cells
  - Tumor model, in vitro, 5060
- Nb2 lymphoma cells
  - Hormone dependency, 3138
- Epithelium
  - Normal/neoplastic, breast/prostate tissue, human, 2317
  - Peroxidase-antiperoxidase immunoassay, 2317
- Mammary neoplasms
  - Hypophysectomized rat, 35
- Receptors, hormone

**Prolactin (cont'd)**

- Mammary neoplasms, 3492
- Tumor growth, rat, 3492
- Urea, *N*-methyl-*N*-nitroso-
- Tumor growth, rat, 3492

**Proline, hydroxy-**

- Bleomycin
- IMR-90 human fetal lung fibroblast cells, 3502

**Prolyl hydroxylase**

- Bleomycin
- IMR-90 human fetal lung fibroblast cells, 3502
- Collagen
- Lung, rat, 405

**Pronase**

- CCRF-CEM leukemia cells
- Vinca alkaloid drug resistance
- 184

**Propane, 1,2-bis(3,5-dioxopiperazine-1-yl)**

- Prostatic neoplasms
- Tumor growth/metastases, rat
- 1390

**$\beta$ -Propiolactone**

- DNA, viral
- Depurination and mutagenicity
- 3480

**Propionic acid, 2-[4-(*p*-chlorophenyl)phenoxy]-2-methyl, methyl ester**

- Peroxisomes
- Hepatocarcinogenesis, rat, 259

**Prostaglandin E<sub>2</sub>**

- 12-*O*-Tetradecanoylphorbol-13-acetate
- Ornithine decarboxylase, 2841

**Prostaglandin synthetase**

- Benzidine, 3,5,3',5'-tetramethyl-
- Production of colored product
- 2567
- Benzo(a)pyrene, 7,8-dihydroxy-7,8-dihydro-, (+)-*trans*
- C3H/10T1/2 mouse embryo cells
- 2628
- Oxidase-dependent carcinogen activation, 2628
- Diethylstilbestrol
- Oxidative metabolism, seminal vesicles, ram, 919
- Indomethacin
- Bladder neoplasms, 5038
- Polycyclic aromatic hydrocarbons
- Mutagenic activation, 1620
- Salmonella typhimurium*, 1620

**Prostaglandins**

- Benzidine, 3,5,3',5'-tetramethyl-
- Production of colored product
- 2567
- U-937 human histiocytic lymphoma cells
- Cell differentiation, 3924

**Prostaglandins (cont'd)**

- N*<sup>6</sup>, *O*<sup>6</sup>-Dibutyryladenosine cyclic 3':5'-monophosphate
- Carcinogenesis, prostate gland, mouse, 3682
- Interferon
- GM258 cells, 3209
- HEC-1 cells, 3209
- RSa human cells, 3209
- Papaverine
- Carcinogenesis, prostate gland, mouse, 3682
- Phorbol esters
- Skin of ear, guinea pig in vitro
- 1975

**Prostatic neoplasms**

- Androgens
- Growth, normal/castrated rat
- 3148
- Hormonal responsiveness, rat, in vivo, 5010
- Antibodies, monoclonal
- Antigens, neoplasm, 1215, 3084
- Diagnostic markers, 3714
- Cell membrane
- Gel electrophoresis of normal/neoplastic prostate tissue, rat
- 2748
- Proteins, 2748
- Cell transformation, neoplastic
- Karyotyping, prostate gland, rat
- 4131
- Creatine kinase
- Neoplastic/hyperplastic prostate gland, human, 4842
- N*<sup>6</sup>, *O*<sup>6</sup>-Dibutyryladenosine cyclic 3':5'-monophosphate
- Carcinogenesis, prostate gland, mouse, 3682

**Diet**

- Androgens, 3864
- Estrogens, 3864
- Serum/urinary levels, South African black men, 3864
- Diethylstilbestrol
- Tumor growth/metastases, rat
- 1390
- Dunning R-3327 rat prostatic adenocarcinoma
- Aberrant tumor cell lines/phenotypic diversity, 2353
- Epidemiology, South African/North American black men
- Hormonal response, 2074
- Estramustine phosphate
- Binding, prostate tissue, human
- 1935
- Hexosaminidase
- Enzyme activity, 4300
- Propane, 1,2-bis(3,5-dioxopiperazine-1-yl)
- Tumor growth/metastases, rat
- 1390
- Prostaglandins
- Carcinogenesis, prostate gland, mouse, 3682
- Transferrin
- Dunning prostatic tumor, 243

**Prostatic neoplasms (cont'd)**

- Isolation/characterization/distribution, 243

**Proteases**

- P815 mastocytoma cells
- Cell migration, 2135
- Zonulae occludentes
- RBTCC-5 rat bladder cancer cells
- 2289

**Protein, C-reactive**

- Metastases
- Fibrosarcoma, 5084

**Protein, glial fibrillary acid**

- Glioma
- Surgical biopsies/cell lines/tumor transplants, 168

**Protein synthesis**

- Guanine, 3-deaza-
- L1210 leukemia cells, 4039

**Proteinase**

- Mammary neoplasms
- Isolation and characterization
- 1026

**Proteins**

- Acetamide, *N*-fluoren-2-yl
- Carcinogenesis, liver, rat, 4664
- Azobenzene, 3'-methyl-4-dimethylamino-
- Carcinogenesis, liver, rat, 4664
- Bleomycin
- DNA-binding vs degradation, serum, cancer patients, 1562
- DNA-binding vs degradation, serum, cancer patients, 1555
- Cachexia
- Metabolism, cancer patients
- 721s
- Muscles, cancer patient, 4807
- Cell differentiation
- HL-60 human leukemia cells
- 5106
- U-937 human leukemia cells
- 5106
- Cell membrane
- Dunning prostate adenocarcinoma, R3327, 2748
- Gel electrophoresis of normal/neoplastic prostate tissue, rat
- 2748
- Distribution, normal/neoplastic tissue, human, 4763
- Estrogens
- Antibodies, monoclonal, 4256
- MCF-7 breast cancer cells, 4256
- Ethionine
- Carcinogenesis, liver, rat, 4664
- Ethylphenylpropionate
- Epidermis, mouse, 4164
- Hyperthermia
- L mouse cells, 1395
- Phosphorylation, 1395
- Keratinization
- Reversible/permanent hyperplasia, epidermis, mouse, 1517



**Proteins (cont'd)**

- Lung neoplasms
  - Metabolism, male patients, 4815
- 3-Methylhistidine
  - Muscles, cancer patient, 4807
- Mezerein
  - Epidermis, mouse, 4164
- Retinoids
  - Isolation and characterization, liver, human, 1033
- Serum, cancer patient/tumor-bearing rat
  - Biological marker, human, 4964
- 12-*O*-Tetradecanoylphorbol-13-acetate
  - Epidermis, mouse, 4164, 4176
  - Papilloma, 4176
- Thermotolerance
  - Morris hepatoma 7777 cells 2457
- Vitamin A
  - Isolation and characterization, liver, human, 1033

**Proteins, neoplasm**

- Transferrin
  - Dunning prostatic tumor, 243
  - Isolation/characterization/distribution, 243

**Proteins, nonhistone**

- Antigens, neoplasm
  - HeLa cells, 4546
- Azo dyes
  - Hepatocarcinogenesis, rat, 3164
- Chromatin
  - Neoplastic cells, human, 4546

**Proteins, viral**

- Glycoproteins
  - P815 mastocytoma cells, 3828
- Leukemia, myelocytic
  - Serological evidence of infection 681
- Virus, simian sarcoma, 681
- Virus, Rauscher murine leukemia
  - P815 mastocytoma cells, 3828

**Proteoglycan**

- Chondrosarcoma
  - Chondrocytes, normal/neoplastic tissue, rat, 2384

**Proton relaxation**

- Microtubules
  - Human breast cancer cells, 4124
  - Nuclear magnetic resonance 4124

**PS-K**

- Cyclophosphamide
  - KMT-17 rat fibrosarcoma cells 5176
  - Meth-A rat fibrosarcoma cells 5176
  - YM-12 rat fibrosarcoma cells 5176

**Psoralen**

- Trioxsalen, 4'-hydroxymethyl-
  - Cell cycle kinetics, 2223

**Psoralen (cont'd)**

- S91 Cloudman melanoma cells 2223

**Pteridines**

- Glycoproteins
  - Biological marker, serum, cancer patients, 1567, 1574

**Purine, 6-mercapto-**

- D98 Chinese hamster lung cells
  - Activity in sensitive/resistant cell lines, 3769
- L1210 leukemia cells
  - Activity in sensitive/resistant cell lines, 3769
- Urea, 3-[(4-amino-2-methyl-5-pyrimidinyl)methyl]-
  - L1210 leukemia cells, 4079
  - DNA cross-linking, 4079

**Purine ribonucleoside monophosphates**

- Leukemia(s)
  - Bone marrow, 1326
  - Lymphocytes, 1326

**Purines**

- 5-Carbamoyl-1*H*-imidazol-4-yl piperonylate
  - Ehrlich carcinoma cells, 1098
  - L1210 leukemia cells, 1103
  - L5178Y mouse leukemia cells 1098
  - P388 mouse leukemia cells, 1103
- 4-Carbamoylimidazolium 5-olate
  - Ehrlich carcinoma cells, 1098
  - L1210 leukemia cells, 1103
  - L5178Y mouse leukemia cells 1098
  - P388 mouse leukemia cells, 1103
- Methotrexate
  - CCRF-CEM leukemia cells, 5159
  - L1210 leukemia cells, 5159
  - PMC-22 human melanoma cells 5159

**Pyran**

- Macrophages
  - Ehrlich ascites carcinoma cells 2198
  - Tumoricidal activity vs DNA reduction, 2198

**Pyrazofurin**

- Pyrimidine ribonucleotides
  - Leukemia L1210, 4525
  - Lung neoplasms, 4525

**Pyrazole**

- Acetamide, *N*-fluoren-2-yl-
  - Carcinogenesis inhibition, 2985
  - Normal/regenerating liver/colon, rat, 2985
- Methanol, methoxy-onn-azoxy-, acetate
  - Carcinogenesis inhibition, 2985
  - Normal/regenerating liver/colon, rat, 2985
- Methanol, (methyl-onn-azoxy)-
  - Carcinogenic activity, gastrointestinal/skin/kidney, rat, 1774

**Pyridoxal kinase**

- Fu5-5 rat hepatoma cells
  - Evolution of pyridoxine resistance 2362

**Pyridoxal phosphate**

- Vitamin B<sub>6</sub>
  - Normal/neoplastic, fetal/neonatal/adult liver, 3538

**Pyridoxine**

- Fu5-5 rat hepatoma cells
  - Evolution of pyridoxine resistance 2362

**Pyridoxine kinase**

- Vitamin B<sub>6</sub>
  - Normal/neoplastic, fetal/neonatal/adult liver, 3538

**Pyridoxine phosphate kinase**

- Vitamin B<sub>6</sub>
  - Normal/neoplastic, fetal/neonatal/adult liver, 3538

**Pyrimidine, 2,4-diamino-5-adamantyl-6-methyl-**

- Antineoplastic agents
  - Toxicity/pharmacokinetics, dog 2177

**Pyrimidine ribonucleoside monophosphates**

- Leukemia(s)
  - Bone marrow, 1326
  - Lymphocytes, 1326

**Pyrimidine ribonucleotides**

- Aspartic acid, *N*-(phosphonacetyl)-
  - Leukemia L1210, 4525
  - Lung neoplasms, 4525
- Pyrazofurin
  - Leukemia L1210, 4525
  - Lung neoplasms, 4525

**Pyrimidines**

- Colonic neoplasms
  - Biochemistry/enzymology, mouse/human neoplasms 1176

**Pyrophosphatase**

- Isolation and characterization, normal/neoplastic liver, rat 3526

**Pyrozolimidazole**

- Ribonucleotide reductase
  - L1210 leukemia cells, 4353

**Pyrroles**

- CL1 human breast carcinoma cells
  - bis*-Carbamoyloxy methyl derivatives, mouse, 2168
- DOI human long carcinoma cells
  - bis*-Carbamoyloxy methyl derivatives, mouse, 2168
- HT-29 colon adenocarcinoma cells
  - bis*-Carbamoyloxy methyl derivatives, mouse, 2168

**Pyrroles (cont'd)**

tives, mouse, 2168

**Pyrrolizidine alkaloids**Guanosine, deoxy-  
Carcinogenic mechanism, 8**Pyrrolizines**CL1 human breast carcinoma cells  
*bis*-Carbamoyloxy methyl deriva-  
tives, mouse, 2168DO1 human lung carcinoma cells  
*bis*-Carbamoyloxy methyl deriva-  
tives, mouse, 2168HT-29 colon adenocarcinoma cells  
*bis*-Carbamoyloxy methyl deriva-  
tives, mouse, 2168**Pyruvate kinase****Isoenzymes**Normal/benign/malignant breast  
tissue, 888**Retinoblastoma**Neoplastic/normal retina tissue,  
enzyme isozymes, human  
4228**Q****Quail, Japanese**Virus, Moloney sarcoma  
Fibrosarcoma, 2523  
Lymphosarcoma, 2523**Quinazoline, 2,4-diamino-5-methyl-6-  
[(3,4,5-trimethoxyanilino)methyl]-**

1696

**Folate antagonists**Pharmacology/toxicity, dog  
1696**R****Radionuclides****Polonium**Carcinogenesis, lung epithelium,  
hamster, 1405**Radioprotection****Dithiocarbamate, diethyl-**HA-1 Chinese hamster cells  
3074Phosphorothioic acid, *S*-(2-(3-  
aminopropylamino)ethyl) ester  
Fibrosarcoma, 1888**WR-2721**Activity, AKR mouse, 4330  
Leukemia, 4330  
Nitrogen mustard, 4330**Radiosensitizers****Azomycin riboside**V79 hamster fibroblast cells  
4358Platinum(II),diaminedichloro, *cis*-  
Pharmacokinetics, central nervous  
system, human, 2474**Radiotherapy**

Hyperalimentation, 747s

**Nutrition**Gastrointestinal-related side-  
effects, child, 729s

Nutrition, total parenteral

Growth, 754s

Radiation side-effects, child, 754s

 **$\gamma$ -Rays****Epithelial cells**Benz(*a*)anthracene, 7,12-dimethyl-  
1753

Mammary glands, mouse, 1753

SCC-OH-1 human lung carcinoma  
cells, 1361Cytosine, 1- $\beta$ -D-arabinofuranosyl-  
Tumor growth, mouse, 5231**DNA**Single-strand/double-strand DNA  
breaks, hepatocytes, rat, 2592**Drug synergism**Cytosine, 1- $\beta$ -D-arabinofuranosyl-  
5231

Tumor growth, mouse, 5231

Vinblastine, 5231

**Polonium**

Lung neoplasms, 1405

**Receptors, hormone****Androgens**Prostatic tissue, human, 4849  
Temperature effects on assay  
parameters, 4849**Aromatase**

Breast neoplasms, 3365

**Breast neoplasms**Cytoplasm/nucleus, breast tissue,  
male patient, 4812

DNA synthesis, 359

Estrogens, 3338, 3365, 3420

Insulin, 1137

MCF-7 breast cancer cells

17 $\beta$ -Estradiol, 1967

Estrone, 1967

R3327-G rat prostate adenocar-  
cinoma cells

Androgens, 2184

Tumor growth, rat, in vivo, 2184

**Deacylcortivazol**CEM-C7 human leukemia cells  
2110**Diethylstilbestrol**

MCF-7 breast cancer cells, 5147

**17 $\beta$ -Estradiol**

MCF-7 breast cancer cells, 5147

**Estrogens**Biosynthesis, human, in vivo  
3365

Breast neoplasms, 4443, 4449

HL-60 leukemia cells, 4701

MCF-7 breast cancer cells, 139,  
5147

17-Fluoresceinated estrone, 540

Mammary neoplasms, 3492

Myometrial tissue, human, 4443

Receptor binding assay, 540

Tumor growth, rat, 3492

**Receptors, hormone (cont'd)****Leukemia, lymphocytic**

Glucocorticoid, 4801

Prognosis, child patients, 4801

**Mammary neoplasms**Pathology of tumors vs receptor  
content, dogs, 2255Receptor characteristics, male  
mouse, 2434**Melanoma**

Glucocorticoids, 2238, 2242

**Pituitary neoplasms**

Estrogen, 1492

**Progesterone**

MCF-7 breast cancer cells, 139

Endometrial carcinoma, 1322

**Prolactin**

Mammary neoplasms, 3492

Tumor growth, rat, 3492

**Tamoxifen**Binding, uterus, fetal guinea pig  
1913Cell growth vs receptor binding  
317MCF-7 breast cancer cells, 317  
5147**Receptors, vitamin****Calcitonin**

Neoplastic cells, human, 1116

Vitamin D<sub>3</sub>, 1,25-dihydro-

Neoplastic cells, human, 1116

Vitamin D<sub>3</sub>, 1,25-dihydroxy-Huk-HeLa human kidney/cercical  
cells, 856

Human fibroblast cells, 856

**Rectal neoplasms****Antigens, neoplasm**

Immunoperoxidase assay, 4820

Uracil, 5-fluoro-

Thymidine, 2930

**Reserpine, diethylamino-****Oxygen**Cytotoxicity, mouse, in vivo  
3028**Retinamide, N-(4-hydroxyphenyl)-****Mammary neoplasms**

Ovariectomized/normal rat, 508

**Retinoblastoma****Aldolase**Neoplastic/normal retina tissue,  
enzyme isozymes, human  
4228**DNA repair**

X-rays, 1343

**Fibroblasts**

Tissue culture, 301

**Hexokinase**Neoplastic/normal retina tissue,  
enzyme isozymes, human  
4228

**Retinoblastoma (cont'd)**

- Pyruvate kinase
  - Neoplastic/normal retina tissue, enzyme isozymes, human 4228

**Retinoic acid**

- see also Vitamin A
- Cell differentiation
  - HL-60 leukemia cells, 4421
- HRT-18 rectal adenocarcinoma cells
  - Cell differentiation, neoplastic 1052
- U-937 human histiocytic lymphoma cells
  - Cell differentiation, 3924, 3928
- Fibronectin
  - Skin neoplasms, 4465
- Glucose, 2-deoxy-
  - Swiss 3T3 fibroblast cells, 4918
- Phase I/II clinical trials, 2069
- Pharmacokinetics, human, 2087
- Phorbol esters
  - Cell differentiation, 484
  - HL-60 leukemia cells, 484
- Phorbol myristate acetate
  - Swiss 3T3 fibroblast cells, 4918
- Plasminogen activator
  - UCT-Mel 1 human melanoma cells, 5191
- RNA synthesis
  - Swiss 3T3 fibroblast cells, 4918
- Sarcoma
  - Growth inhibition, in vitro, 4771
- Teratoma
  - Cell differentiation, 1843
- Tumor promoters
  - Carcinogenesis vs initiation-promotion, skin, mouse, 3519

**Retinoids**

- see also Vitamin A
- Pancreatic neoplasms
  - Anti-tumor activity, rat, 19
- Protein
  - Isolation and characterization, liver, human, 1033

**trans-Retinal**

- Cell membrane
  - Anti-carcinogenesis mechanism, rat, 2450

**Retinyl acetate**

- see also Vitamin A
- Mammary neoplasms
  - Tumor growth prevention, rat 2639
  - Tumor growth, rat, 903
- Ovarian hormones
  - Tumor growth, rat, 903

**Retronecine, dehydro-**

- Guanosine, deoxy-
  - Adduct formation, in vitro, 8

**Review**

- Antineoplastic agents
  - 2-Haloadenosines, 3911

**Review (cont'd)**

- Aromatase
  - Breast neoplasms, 3268
- Cytochrome P-450, 4875
- Diet
  - Enzyme activity, 4875
  - Liver microsomes, human, 4875
- Estrogens
  - Aromatase, 3269
- Hormones, sex
  - Breast neoplasms, 3232
  - Endometrial neoplasms, 3232
  - Ovarian neoplasms, 3232
  - Testicular neoplasms, 3232
- Lymphoma, Hodgkin's
  - Antineoplastic agents, 4309
- Nutrition
  - Anti-tumor effects, 756
- Smoking, 4875

**Rhabdomyosarcoma**

- Ascorbic acid, sodium salt
  - Cytotoxicity, in vitro, 1331
- Dopamine, 6-hydroxy-
  - Cytotoxicity, in vitro, 1331
- Neoplasm cell heterogeneity
  - Metastases, 3776
- Transplantation, heterologous
  - Tumor model, immunosuppressed mouse, 535

**Rhodamine 123**

- CHO cells, 799
- Friend erythroleukemia cells, 799
- L1210 leukemia cells, 799
- Lymphocytes
  - Cell cycle kinetics, 799
  - Flow cytometry, 799

**N-[9-(β-D-Ribofuranosyl)purin-6-ylcarbamoyl]-L-threonine**

- Radioimmunoassay
  - Biological marker, cancer patient 5265

**1-(β-D-Ribofuranosyl)-pyridazin-6-one, 4-hydroxy-**

- L1210 leukemia cells
  - Uridine kinase, 100

**Ribonucleases**

- Pancreas, human
  - Isolation and characterization 4836

**Ribonucleotide reductase**

- Adenine, erythro-9(2-hydroxy-3-nonyl)-
  - L1210 leukemia cells, 4353
- Adenosine, deoxy-
  - L1210 leukemia cells, 4353
- Desferal
  - L1210 leukemia cells, 4353
- Pyrozoimidazole
  - L1210 leukemia cells, 4353
- Urea, hydroxy-
  - L1210 leukemia cells, 4353

**Ricin**

- Antibodies, monoclonal
  - Toxicity, rabbit, 457

**Ricin (cont'd)**

- Tumor growth, mouse, in vivo/in vitro, 5209
- Daunorubicin
  - Cytotoxicity, mouse, in vivo 2152
  - Leukemia L1210, 2152
- Platinum(II), diamminedichloro-, *cis*
  - Cytotoxicity, mouse, in vivo 2152
  - Leukemia L1210, 2152
- Vincristine
  - Cytotoxicity, mouse, in vivo 2152
  - Leukemia L1210, 2152

**RNA**

- Adriamycin
  - Mycocardium, rat, 79
- Bladder neoplasms
  - Histograms, tumor diagnosis, human, 1094
- Carcinogens
  - Liver, rat, 3228
- Colonic neoplasms
  - Normal colon/liver/kidney vs neoplastic colon, mouse, 1088
- Hepatoma
  - Mastomys natalensis*, 1986
- RNA, messenger
  - Hepatoma
    - Mastomys natalensis*, 1986
  - Mammary neoplasms
    - Casein, 1355
  - Thioacetamide
    - RNA-DNA hybridization, 421

**RNA methyltransferases**

- Intraspecies variation, mouse
  - Genetic control of enzyme system 4064

**RNA synthesis**

- Cockayne's syndrome
  - Ultraviolet rays, 1473
- Retinoic acid
  - Swiss 3T3 fibroblast cells, 4918
- Xeroderma pigmentosum
  - Ultraviolet rays, 1473

**RNA, transfer**

- Lymphoma, Hodgkin's
  - Cell transformation, neoplastic 3887
  - Pathogenesis, Hodgkin's cells 3887
- Meeting report
  - Neoplastic/normal tissue, 2099
- Methyltransferase
  - Mammary neoplasms, 5004
- 1,3,4-Thiazole, 2-amino-4-(5-nitro-2-furyl)-
  - Nitroreductase, 4479

**RNA transferase**

- Mammary neoplasms
  - Enzyme activity, normal/neoplastic mammary gland tissue, rat, 4979

## S

**Saccharin**

- Bladder neoplasms
- Carcinogenesis, hyperplastic bladder, rat, in vivo, 65
- Nerve growth factor
- Sensory ganglia, chick embryo 429

**Saccharomyces cerevisiae**

- DNA repair
- Antineoplastic agents, 929

**Salmonella typhimurium**

- see also Ames test
- Acrolein
  - Mutagenicity/teratogenicity, 3106
- Anthracene, 2-amino-
  - Mutagenic activation, 1722
- Benzamine, 4,4'-methylenbis(*N,N*-dimethyl)-
  - Mutagenicity, 3475
- Chrysene
  - Mutagenicity of 1,2-diol-3,4-epoxides, 2972
- Colonic neoplasms
  - Epidemiology, Japanese populations in Hawaii and Japan 1164
  - Fecal mutagens, 1164
- Cyclophosphamide
  - Mutagenicity/teratogenicity, 3106
- Cyclophosphamide, 4-hydroxy-
  - Mutagenicity/teratogenicity, 3106
- Cytochrome P-450
  - Anthracene, 2-amino-, 1722
  - Polycyclic aromatic hydrocarbons 1620
- Ethionine
  - Carcinogenic/mutagenic/biochemical activities, 4364
- N*-Hydroxyphenacetin *O*-glucuronide
  - Mutagenicity, 3201
- Melphalan
  - Mutagenicity/teratogenicity, 3106
- Mutagenic activity
  - Urine, pharmacy personnel, 4792
- N*-Nitrosoglycocholic acid
  - Mutagenicity assay, 2601
- N*-Nitrosotaurocholic acid
  - Mutagenicity assay, 2601
- Phenacetin
  - Metabolites, liver, hamster/rat 3201
- Prostaglandin synthetase
  - Polycyclic aromatic hydrocarbons 1620
- Triazene, 3-methyl-1-phenyl-
  - Carcinogenesis activity of derivatives and related compounds 1446
- S*-Vinylhomocysteine
  - Carcinogenic/mutagenic/biochemical activities, 4364

**Sarcoma**

- Albumin
  - Degradation, liver, mouse, 2284
- Antigens, neoplasm

**Sarcoma (cont'd)**

- ELISA, 3978
- Chemotherapy
  - Enteral vs total parenteral feeding 774s
  - Treatment tolerance/survival, cancer patient, 774s
- Cholanthrene, 3-methyl
  - Carcinogenesis, mouse, 4740
- Cyclophosphamide
  - Hydrocortisone, 4437
- Cytosine, 1- $\beta$ -D-arabinofuranosyl-
  - Urea, hydroxy-, 4339
- Growth factors
  - Isolation, mouse embryo, 590
- Platinum(II),diammedichloro-, *cis*-
  - Intracerebral metastases/primary brain tumors, human, 2059
- Reserpine, diethylamino-
  - Cytotoxicity, mouse, in vivo 3028
- Retinoic acid
  - Growth inhibition, in vitro, 4771

**Sarcoma, Crocker 180**

- Hematoporphyrin derivative
- Tumor localization, 1703

**Sarcoma, osteogenic**

- Antibodies, monoclonal
- Antigens, neoplasm, 654
- Methotrexate
  - High-dose therapy, case report 1604

**Selenium**

- Acetamide, *N*-fluoren-2-yl-
  - Carcinogenesis inhibition, 2985
- Normal/regenerating liver/colon, rat, 2985
- Benz(*a*)anthracene, 7,12-dimethyl 4954
- Colon neoplasms
  - Tumor growth, rat, 4455
- Mammary neoplasms
  - Carcinogenesis, rat, 4954
- Methanol, methoxy-onn-azoxy-, acetate
  - Carcinogenesis inhibition, 2985
- Normal/regenerating liver/colon, rat, 2985

**Seminoma**

- see Germ cell neoplasms

**Serine protease**

- Bone marrow cells
- Tumor-induced cytolysis, 207
- Erythrocytes, 207

**Serotonin**

- Carcinoid tumor
- Cell culture, 1513

**Sialic acid**

- Biological marker, cancer patients 5270

**Sister chromatid exchanges**

- see also Chromosome aberrations
- Aniline

**Sister chromatid exchanges (cont'd)**

- Liver/kidney/bone marrow/spleen, rat/mouse, 2277
- Antigens, neoplasm
  - F2408 rat fibroblast cells, 1909
- Carbamates, vinyl/allyl
  - Bone marrow, 2165
  - Macrophages, 2165
  - Regenerating liver cells, mouse 2165
- Cell cycle kinetics
  - Cell lines AKR mouse, 2813
- AKR bone marrow cells
  - Urea, 1,3-bis(2-chloroethyl)-1-nitroso-, 2816
- AKR lymphoma cells
  - Urea, 1,3-bis(2-chloroethyl)-1-nitroso-, 2816
- Diethylstilbestrol
  - Lymphocytes, 893
  - Pregnant/premenopausal/postpausal women, men, 893
- Leukemia, lymphoblastic
  - Child patients in remission, 2906
  - DNA repair, 2906
  - Karyotyping, long-term survivors 4289
- Leukemia, myelocytic
  - Normal/leukemic/blast phase bone marrow cells, 3240
- Melanoma
  - Sensitivity to radiation vs neoplasm incidence, human, 2909
  - Ultraviolet rays, 2909
- Methapyrilene
  - Bone marrow cells, 4614
  - CHO cells, 4614
  - V79 Chinese hamster lung fibroblast cells, 4614
  - Hepatocytes, 4614
  - Normal/neoplastic liver cells, co-cultured, in vitro, 4614
- Virus, Friend murine leukemia
  - Hematopoietic organs, mouse, in vivo, 4753

**Skin neoplasms**

- Bacillus Calmette-Guerin*
  - Anti-tumor activity, guinea pig 2544
- Benzo(*a*)pyrene, fluoro-substituted
  - Metabolism/tumorigenicity, mouse, 4779
- Cynops pyrrhogaster*
  - Tumor incidence, 3741
  - Virus, herpes-type, 3741
- Fibronectin
  - Retinoic acid, 4465
  - 12-*O*-Tetradecanoylphorbol-13-acetate, 4465
- Fibrosarcoma
  - Antigens, neoplasm, 2371
  - Ultraviolet rays, 2371
- Graft vs host reaction
  - Genetic factors, 437
  - Tumor models, SENCAR and BALB mice, 437
- Immunotherapy



**Skin neoplasms (cont'd)**

- Bacillus Calmette-Guerin*, 2544
- 12-*O*-Tetradecanoylphorbol-13-acetate, 4-*O*-methyl-
  - Carcinogenesis, skin, mouse, 342
- 12-*O*-Tetradecanoylphorbol-13-acetate
  - Metabolism/tumorigenicity, mouse, 4779
- Ultraviolet rays
  - Carcinogenesis, skin, mouse 3941
  - Indomethacin, 3941
  - Photocarcinogenesis, mouse 2796
  - Triamcinolone acetonide, 3941

**Smoking**

- Review, 4875
- Virus, hepatitis B
- Hepatoma, 5246

**Sodium-2-mercaptoethane sulfonate**

- see 2-Ethanthiol sulfonic acid, sodium salt

**Soft agar**

- Bleomycin
  - Drug sensitivity, 4026
- HGT-1 human gastric cancer cells
  - Biochemical/ultrastructural characteristics, 1541
- Neoplastic cells, human
  - Chemosensitivity, 2159
  - Scintillation counting assay, 2159
- Melanoma
  - Drug sensitivity/plating efficiency 1005
  - Oxygen, 1005

**Somatostatin**

- Tumor promoters
  - GH<sub>4</sub>C<sub>1</sub> cells, 4375

**Spermidine *N*,*N*-acetyltransferase**

- Nitrosamine, *N*-diethyl-
  - Enzyme activity, liver, rat, 2990
- Nitrosamine, *N*-dimethyl-
  - Enzyme activity, liver, rat, 2990

***N*<sup>3</sup>-Spermidine**

- Antineoplastic agents
  - Derivatives, 4072

**Spheroids, multicellular**

- 9L rat brain tumor cells
  - Culture methods, 1223
- Hyperthermia
  - EMT6/Ro mouse mammary cells 93
- Oxygen
  - EMT6/Ro fibroblast cells, 237
  - Growth in spinner flasks vs static media, 237
- Q-cells (quiescent cells)
  - EMT-6 fibrosarcoma cells, 72
  - Centrifugal elutriation, 72

**Spirogermanium**

- NIL8 hamster ovary cells

**Spirogermanium (cont'd)**

- Cytotoxicity/biological activity 2852
- Human neoplastic cell lines, 2852

**Splenocytes**

- 12-*O*-Tetradecanoylphorbol-13-acetate
  - Alloimmune cytotoxicity, 5023

***Src* gene**

- Phosphoproteins
  - Isolation/characterization, teleostean fish, 2429

***Staphylococcus aureus***

- Mammary neoplasms
  - Immunoadsorption, plasma, dog 3663
  - Tumor regression, rat, 4970

**Stereology**

- Hepatoma
  - Qualitative analysis, preneoplastic/neoplastic liver factor, 465

**Stomach neoplasms**

- Antigens, neoplasm
  - Case history of patient with *pp* blood, 5249
- Bile acids
  - Tumor incidence, W/W genotype mouse, 3806
- Collagen
  - Epithelium, 2019
- Gastrin, 1781
- Glycolipids
  - Case history of patient with *pp* blood, 5249
- Glycoproteins
  - Case history of patient with *pp* blood, 5249
- Guanidine, *N*-methyl-*N*'-nitro-*N*'-nitroso-
  - Carcinogenic activity, rat, 1781
- Hormones, sex
  - Cancer incidence, rat, 5181
  - Lamina muscularis mucosae 5181
- Vitamin A
  - Tumor incidence, W/W genotype mouse, 3806

**Streptonigrin**

- DNA
  - Free radical formation, cell nuclei, rat, 1078

**Sugar chains**

- Cell membrane
  - Cell transformation, neoplastic 2884
- Leukemia, erythroblastic, 2884

**Sulfides, metal**

- see also Nickel sulfide
- Phagocytosis
  - Syrian hamster ovary cells, 2757

**Superoxide dismutase**

- Head and neck neoplasms

**Superoxide dismutase (cont'd)**

- Isoenzymes, 4233
- Oxygen
  - Normal/neoplastic cells; normal tissues, human, 1955

**Surgery**

- Hyperalimentation
  - Prognosis, child, 747s
- Nutrition
  - Gastrointestinal-related side-effects, child, 729s

**T****T-cell growth factor**

- Phorbol esters
  - EL-4 mouse lymphoma cells 1676

**Tagamet**

- see Cimetidine

**Talisomycin**

- DNA
  - Cleavage of nucleotide sequences 1399
- Computer analysis of strand breaks, 2779

**Tamoxifen**

- Aminoglutethimide
  - Breast neoplasms, 3409, 3430 3437, 3448, 3451, 3458 3461
- Antineoplastic agents
  - Breast neoplasms, 3434
- Breast neoplasms
  - Oophorectomy, 4788
  - Review, 3424
- MCF-7 breast cancer cells
  - Ultrastructural study, 667
- ZR-75 breast cancer cells
  - Ultrastructural study, 667
- DNA synthesis
  - MCF-7 breast cancer cells, 1727
  - Orthophosphate vs thymidine labeling, 1727
- Receptors, hormone
  - Binding, uterus, fetal guinea pig 1913
  - Breast neoplasms, 4449
  - Cell growth vs receptor binding 317
  - MCF-7 breast cancer cells, 317 5147

**Teleocidin**

- Cell transformation, viral
  - CREF Fischer rat embryo cells 2829

**Teniposide**

- Methotrexate
  - Ehrlich ascites tumor cells, 3648
  - Drug synergism, 3648

**Teratocarcinoma**

- Glycopeptides
  - Biochemical properties, human cells, 1749

**Teratoma**

- Acetamide, dimethyl-  
Cell differentiation, 1843
- Retinoic acid  
Cell differentiation, 1843

**Testicular neoplasms**

- Antigens, histocompatibility  
Analysis/cancer risk, human  
2470
- Hormones, sex  
Review, 3232

**$\Delta^1$ -Testololactone**

- Antineoplastic agents  
Breast neoplasms, 3387
- Aromatase  
Breast neoplasms, 3338, 3345  
Enzyme inhibition, 3345  
Enzyme inhibition, in vitro, 3338

**Testosterone**

- Aromatase, 3307
- Enzyme activity, normal/  
neoplastic breast tissue, 3369
- PC-3 prostatic carcinoma cells  
Zinc, 2
- Mammary neoplasms  
Hormone dependency, 3510  
Metabolism, in vitro, 3510
- Weight loss  
Cancer patients prior to therapy  
2495

**Testosterone, 2 $\alpha$ -methylidihydro-, pro-  
pionate**

- Uracil, 5-fluoro-  
Mammary neoplasms, 4408

**2,3,7,8-Tetrachlorodibenzo-*p*-dioxin**

- see also Dibenzo-*p*-dioxin, 2,3,7,8-  
tetrachloro-
- Aryl hydrocarbon hydroxylase  
Metabolism, liver/pancreas, ham-  
ster, 5089

**12-*O*-Tetradecanoylphorbol-13-acetate,  
4-*O*-methyl-**

- Skin neoplasms  
Carcinogenesis, skin, mouse, 342

**12-*O*-Tetradecanoylphorbol-13-acetate**

- Amphibians  
Embryo/blastomere reactions and  
alterations, 2804
- Antigens, neoplasm  
Cell transformation, viral, 1909
- Asbestos  
HTE-B hamster tracheal epitheli-  
al cells, 3669  
Tumor promoters, 3669
- Calcium ionophore A 23187  
Dorsal skin, golden hamster  
2034
- Cell differentiation

**12-*O*-Tetradecanoylphorbol-13-acetate  
(cont'd)**

- CM-S human hematopoietic cells  
4182
- HL-60 leukemia cells, 1530
- ML-1 human leukemia cells  
5152
- M5076 mouse reticulum sarcoma  
cells, 1850
- THP-1 human leukemia cells  
1530
- Tumor behavior in vivo vs in vi-  
tro, 1850

**Cell nucleus**

- Epidermis, mouse, 3496

**Cell transformation, neoplastic**

- Syrian hamster embryo cells  
1233
- Fibroblasts, high-risk cancer per-  
sons, 3870

**Cell transformation, viral**

- CREF Fischer rat embryo cells  
2829
- MMC-E mouse embryo epithelial  
cells, 2407

**Epidermal basal cells**

- Differentiation/proliferation, skin  
cultures, mouse, 2344
- JB6 mouse epidermal cells  
Epidermal growth factor, 3093
- HPB-ALL T-lymphoblast cells  
Cell differentiation, 3843
- Syrian hamster epidermal cells  
Deacylation, skin, in vivo/cell, in  
culture, 3098

**Colon neoplasms**

- Epithelial cells, 5096

**Dibenzo(*a,h*)pyrene**

- Bay-region diol epoxides, 25
- Carcinogenesis, skin, mouse, 25
- Dibenzo(*a,h*)pyrene  
Bay-region diol epoxides, 25
- Carcinogenesis, skin, mouse, 25
- Familial diseases  
Fibroblasts, high-risk cancer per-  
sons, 3870

**Fibronectin**

- Skin neoplasms, 4465

**Glycoproteins**

- Cell differentiation, 5222
- HL-60 leukemia cells, 5222

**Keratins**

- Epidermis, mouse, 4176
- Papilloma, 4176

**Lectins**

- DNA synthesis, 1630
- Macrophages, 1630

**T-Lymphocytes**

- Alloimmune cytotoxicity, 5023
- Nerve growth factor  
SH-SY5Y human neuroblastoma  
cells, 5067
- Neurite outgrowth, 5067

**Neutrons**

- C3H/10T1/2 mouse embryo cells  
477

**Ornithine decarboxylase**

**12-*O*-Tetradecanoylphorbol-13-acetate  
(cont'd)**

- Enzyme activity, skin, mouse  
2841
- Prostaglandin E<sub>2</sub>, 2841
- Phenanthrenes; polymethylated  
Carcinogenesis, skin, mouse  
4045
- Proteins  
Epidermis, mouse, 4164
- Skin neoplasms  
Metabolism/tumorigenicity,  
mouse, 4779
- Splenocytes  
Alloimmune cytotoxicity, 5023
- Virus, SV40  
Keratinocytes, 4600
- X-rays  
C3H/10T1/2 mouse embryo cells  
477

**Tetrahydrofolate, 5-formyl-**

- Methotrexate  
CCRF-CEM leukemia cells, 502
- LAZ-007 transformed B-  
lymphocyte cells, 502

**Tetrahydrofolate, 5-methyl-**

- Methotrexate  
CCRF-CEM leukemia cells, 502
- LAZ-007 transformed B-  
lymphocyte cells, 502

**Tetrahydrotetrol**

- X-ray crystallography  
Stereochemistry, 3766

**7,8,9,10-Tetrahydroxy-7,8,9,10-  
tetrahydrobenzo(*a*)pyrene**  
see Benzo(*a*)pyrene, 7,8,9,10-  
tetrahydroxy-7,8,9,10-  
tetrahydro-

**Theophylline**

- Melanocyte-stimulating hormone  
B16 melanoma cells, 2786
- Melanogenesis, in vitro, 2786
- Urea, 1,3-bis(2-chloroethyl)-1-  
nitroso-  
L1210 leukemia cells, 2742

**Thermotolerance**

- CHO cells  
DNA degradation, 4427
- L<sub>1</sub>A<sub>2</sub> cells  
Effect of priming heat treatment;  
in vivo, 4190
- L1210 leukemia cells  
Fatty acids, 3625
- Morris hepatoma 7777 cells  
Synthesis/degradation, heat shock  
proteins, 2457
- Glycerol  
HeLa cells, 2171
- Ornithine,  $\alpha$ -difluoromethyl-  
CHO cells, 5046

**1,3,4-Thiazole, 2-amino-4-(5-nitro-2-  
furyl)-**

- Nitroreductase  
Microsomes, liver, rat, 4479

- 1,3,4-Thiazole, 2-amino-4-(5-nitro-2-furyl)- (cont'd)**  
RNA, transfer, 4479
- Thioacetamide**  
Albumin  
Liver, rat, 421  
DNA synthesis  
RNA-DNA hybridization, 421  
RNA, messenger  
RNA-DNA hybridization, 421
- 6-Thioguanine**  
Urea, 3-[(4-amino-2-methyl-5-pyrimidinyl)methyl]-  
L1210 leukemia cells, 4079  
DNA cross-linking, 4079  
Drug synergism, 4079
- Thiouracil**  
Melanoma  
Cell targeting for therapy, mouse  
5126
- Thymidine**  
5-Azacytidine, 2'-deoxy-  
HL-60 leukemia cells, 519  
L1210 leukemia cells, 519  
Synergistic drug activity, 519  
3'-Chloroethylnitrosurea analog  
Tumor growth vs lethality, mouse  
1624  
Drug sensitivity  
In vitro human tumor stem cell  
assay, 4683  
Methotrexate  
Drug toxicity, human, 4824  
Phase I clinical trial, 4824  
Uracil, 5-fluoro-  
Bone marrow toxicity, human  
2930
- Thymidylate synthetase**  
Antineoplastic agents  
Chemotherapeutic response indicator, mouse, 450
- Thymocytes**  
Adenosine, deoxy-  
Non-dividing cell populations  
324
- Thymosin fraction V**  
Breast neoplasms  
Tumor growth, rat, 1266  
L1210 leukemia cells  
Tumor growth, mouse, 2139  
Dietary protein  
Tumor growth, mouse, 2139
- Thymus gland**  
Breast neoplasms  
Tumor growth, rat, 1266
- Thyroid gland hormones**  
Mammary neoplasms  
Tumor incidence, mouse, 4553
- Thyronine, 3,3',5-triiodo-**  
Hepatoma, Morris 7777  
Tumor growth, mouse, 155
- Thyrotropin-releasing hormone**  
Prostatic neoplasms  
Epidemiology, South African/  
North American black men  
2074  
Tumor promoters  
GH<sub>4</sub>C<sub>1</sub> cells, 4375
- $\alpha$ -Tocopherol**  
see also Vitamin E  
B16 melanoma cells  
Growth inhibition: vs morphological alterations, 550  
L-cells fibroblasts  
Growth inhibition vs morphological alterations, 550
- Transferrin**  
Lipoproteins, high density  
Human neoplasm cells, 3704  
Prostatic neoplasms  
Dunning prostatic tumor, 243  
Isolation/characterization/  
distribution, 243
- Transforming growth factor**  
Cell transformation, neoplastic  
SV3T3 fibroblast cells, 4776
- Transplantation, heterologous**  
Bladder neoplasms  
Tumor model, mouse, 3696  
Cell differentiation, neoplastic  
HFP human fetal pituitary cells  
2336  
MCF-7 breast cancer cells  
Proteins, 4256  
Tumor growth vs implantation  
site, nude mouse, 906  
RWP-1 human pancreatic cells  
Tumor growth, mouse, 2705  
T343 human colon carcinoma cells  
Drug sensitivity, nude mouse, in  
vivo/in vitro, 3793  
T348 human colon carcinoma cells  
Antineoplastic agents, 3789  
Colonic neoplasms  
Biochemistry/enzymology,  
mouse/human neoplasms  
1176  
Formamide, *N,N*-dimethyl-  
5018  
LoVo colon carcinoma cells  
3111  
SW620 adenocarcinoma cells  
3111  
Cytosine, 1- $\beta$ -D-arabinofuranosyl-  
Immunosuppression, 3696  
Rhabdomyosarcoma  
Tumor model, immunosuppressed  
mouse, 535
- Transplantation, homologous**  
Epithelium  
Cell culture, mammary tissue,  
mouse, 2376  
Hepatocytes  
Hepatectomized rat, 3000
- Transplantation, homologous (cont'd)**  
Lung neoplasms  
Bone marrow, 4270
- Transplantation, neoplasm**  
Colonic neoplasms  
Biochemistry/enzymology,  
mouse/human neoplasms  
1176
- Triamcinolone**  
Collagen  
Lung, rat, 405  
Ornithine decarboxylase  
Carcinogenesis, skin, mouse  
3941  
Ultraviolet rays, 3941
- Triazene, 3-methyl-1-phenyl-**  
*Salmonella typhimurium*  
Carcinogenesis activity of derivatives and related compounds  
1446
- Trimetrexate**  
Folate antagonists  
Pharmacology/toxicity, dog  
1696
- Trioxsalen, 4'-hydroxymethyl-**  
Ultraviolet rays  
Cell cycle kinetics, 2223  
S91 Cloudman melanoma cells  
2223
- L-Tryptophan**  
S-Adenosyl-L-methionine decarboxylase  
Enzyme activity, bladder, mouse  
3587  
Ornithine decarboxylase  
Enzyme activity, bladder, mouse  
3587
- Tubercidin**  
HeLa cells  
Cell transport mechanism, 1289  
L5178Y lymphoma cells  
Cell transport mechanism, 1289
- Tubulin**  
Vinblastine  
CCRF-CEM leukemia cells, 1384  
Drug mechanism of action, 1384
- Tumor growth factor**  
HEF hamster embryo fibroblast cells  
Liver cell supernatant, rat/platelet  
extract, human, 2350
- Tumor markers**  
Meeting report, 1159
- Tumor promoters**  
7,8-Benzoflavone  
Carcinogenesis vs initiation-  
promotion, skin, mouse, 3519  
Cell transformation, viral  
MMC-E mouse embryo epithelial  
cells, 2407

**Tumor promoters (cont'd)**

- EL-4 mouse lymphoma cells
  - T-cell growth factor, 1676
- Concanavalin A
  - Lymphocyte cap formation, 2115
- Epidermal growth factor
  - GH<sub>4</sub>C<sub>1</sub> cells, 4375
- HeLa cells
  - Phosphatidylcholine, 1980
  - Phospholipase C, 1980
- Interferon
  - Cytotoxicity inhibition, 1468
- Keratins
  - Epidermis, mouse, 4176
- Macrophages
  - DNA synthesis, 1630
- Nerve growth factor
  - Sensory ganglia, chick embryo 429
- Phenanthrenes; polymethylated
  - Carcinogenesis, skin, mouse 4045
- Phorbol-12,13-dibutyrate
  - Binding, brain cortex, calf, in vitro, 1227
- Phorbol-12,13-didecanoate
  - Syrian hamster embryo cells 1233
  - Deacylation, skin, in vivo/cell, in culture, 3098
- Phorbol esters
  - Cell differentiation, 484
  - Cell-mediated cytotoxicity suppression, 3601
  - HL-60 leukemia cells, 484
  - Leukemia, hair cell, 3724
  - Reversible/permanent hyperplasia, epidermis, mouse, 1517
- Phorbol myristate acetate
  - Cell adhesion, 190
  - Macrophages, 3064
  - RNA synthesis, 4918
- Prostaglandins
  - Skin of ear, guinea pig in vitro 1975
- Proteins
  - Epidermis, mouse, 4164
- Retinoic acid
  - Carcinogenesis vs initiation-promotion, skin, mouse, 3519
  - Fibronectin, 4465
  - Skin neoplasms, 4465
- Somatostatin
  - GH<sub>4</sub>C<sub>1</sub> cells, 4375
- Telocidin
  - CREF Fischer rat embryo cells 2829
- 12-*O*-Tetradecanoylphorbol-13-acetate, 4-*O*-methyl-
  - Carcinogenesis, skin, mouse, 342
- 12-*O*-Tetradecanoylphorbol-13-acetate
  - Alloimmune cytotoxicity, 5023
  - Amphibians, 2804
  - Asbestos, 3669
  - Benzo(a)pyrene, fluoro-substituted 4779

**Tumor promoters (cont'd)**

- Carcinogenesis, skin, mouse, 25
- C3H/10T1/2 mouse embryo cells 477
- Cell differentiation, 1530, 3843
- Cell transformation, viral, 4600
- CM-S human hematopoietic cells 4182
- CREF Fischer rat embryo cells 2829
- Epithelial cells, 5096
- SH-SY5Y human neuroblastoma cells, 5067
- Syrian hamster embryo cells 1233
- Deacylation, skin, in vivo/cell, in culture, 3098
- Differentiation/proliferation, skin cultures, mouse, 2344
- Dorsal skin, golden hamster 2034
- Embryo/blastomere reactions and alterations, 2804
- Epidermal growth factor, 3093
- Epidermis, mouse, 3496
- Fibroblasts, high-risk cancer persons, 3870
- Keratinocytes, 4600
- Macrophages, 4182
- Neurite outgrowth, 5067
- Thyrotropin-releasing hormone
  - GH<sub>4</sub>C<sub>1</sub> cells, 4375

**Tumor surveillance**

- Review, 1608

**Tunicamycin**

- B16 melanoma cells
  - Melanogenesis, 1994
- CCRF-CEM leukemia cells
  - Vinca alkaloid drug resistance 184
- Melanoma
  - Antigens, neoplasm, 583

**Tyrosinase**

- B16 melanoma cells
  - Glucosamine, 1994
  - Tunicamycin, 1994
- Theophylline
  - B16 melanoma cells, 2786

**Tyrosine**

- Carbidopa
  - Tumor growth, mouse, 3056
- Levodopa
  - Tumor growth, mouse, 3056

**Tyrosine aminotransferase**

- Beryllium
  - H-35 hepatoma cells, 473

**U****Ultraviolet rays**

- Antigens, neoplasm
  - Fibrosarcoma, 2371
- Caffeine

**Ultraviolet rays (cont'd)**

- Syrian hamster kidney cells, 4499
  - Cockayne's syndrome
    - RNA synthesis, 1473
  - DNA repair
    - Saccharomyces cerevisiae*, 929
    - Xeroderma pigmentosum, 860
  - Indomethacin
    - Ornithine decarboxylase, 3941
  - Melanoma
    - DNA repair, 84
    - Sensitivity to radiation vs neoplasm incidence, human, 2909
  - Ozone layer
    - Photocarcinogenesis, mouse 2796
  - Skin neoplasms
    - Photocarcinogenesis, mouse 2796
  - Triamcinolone acetonide
    - Ornithine decarboxylase, 3941
  - Trioxsalen, 4'-hydroxymethyl-
    - Cell cycle kinetics, 2223
  - S91 Cloudman melanoma cells 2223
  - Xeroderma pigmentosum
    - RNA synthesis, 1473
- Uracil, 5-fluoro**
- Antineoplastic agents
    - Tumor model, mouse, 440
  - Antiproliferative activity
    - 4 Murine tumor cell lines, 2412
  - L1210 leukemia cells
    - Drug resistance vs enzyme activity, 965
    - Drug sensitivity vs resistance 956
  - MCF-7 breast cancer cells
    - DNA/RNA binding, in vitro 3005
  - Neoplastic cells, human
    - Time-dose relationships, 4413
  - P388 mouse leukemia cells
    - Drug resistance vs enzyme activity, 965
    - Drug sensitivity vs resistance 956
  - Colon neoplasms
    - Chemotherapeutic response indicator, mouse, 450
  - DNA
    - Ehrlich ascites tumor cells, 4927
    - MCF-7 breast cancer cells, 5015
  - Glucocorticoids
    - Cell cycle kinetics, 1686
  - B-Lymphocytes
    - Chemosenitivity, 3753
  - T-Lymphocytes
    - Chemosenitivity, 3753
  - Methotrexate
    - Breast neoplasms, 2081
    - MCF-7 breast cancer cells, 5015
  - 47-DN human mammary carcinoma cells, 2081
  - Clinical trial, 3896
  - Testosterone, 2 $\alpha$ -methylidihydro-, propionate



- Uracil, 5-fluoro (cont'd)**  
 Mammary neoplasms, 4408  
 Thymidine  
 Bone marrow toxicity, human  
 2930  
 Urea, 3-[(4-amino-2-methyl-5-pyrimidinyl)methyl]-  
 L1210 leukemia cells, 4079  
 DNA cross-linking, 4079  
 Urea, 1-(2-chloroethyl)-3-(4-methylcyclohexyl)-1-nitroso-  
 BE human colon neoplasm cells  
 5172  
 HT-29 colon adenocarcinoma  
 cells, 5172  
 Drug synergism, 5172  
 Uridine  
 DNA synthesis, 3964  
 Drug toxicity, mouse, 3964  
 Warfarin  
 Colon neoplasms, 4827
- Uracil, 2'-fluoro-5-methyl-1-β-D-arabinofuranosyl-**  
 L1210 leukemia cells  
 DNA -effects/cytotoxicity/  
 chemotherapeutic effects, 3957  
 Leukemia(s)  
 Cytotoxicity, human/mouse cell  
 lines, 2598  
 P815 mastocytoma cells  
 DNA -effects/cytotoxicity/  
 chemotherapeutic effects, 3957
- Urea, 3-[(4-amino-2-methyl-5-pyrimidinyl)methyl]-  
 -1-(2-chloroethyl)-1-nitroso-, 4079**  
 Purine, 6-mercaptop-  
 L1210 leukemia cells, 4079  
 DNA cross-linking, 4079  
 6-Thioguanine  
 L1210 leukemia cells, 4079  
 DNA cross-linking, 4079  
 Drug synergism, 4079  
 Uracil, 5-fluoro-  
 L1210 leukemia cells, 4079  
 DNA cross-linking, 4079  
 Uridine, 5-bromo-2'-deoxy-  
 L1210 leukemia cells, 4079  
 DNA cross-linking, 4079
- Urea, 1,3-bis(2-chloroethyl)-1-nitroso-**  
 Brain neoplasms  
 X-rays, 812  
 AKR bone marrow cells  
 Cell cycle kinetics, 2816  
 Sister chromatid exchanges, 2816  
 AKR lymphoma cells  
 Cell cycle kinetics, 2813, 2816  
 Sister chromatid exchanges, 2816  
 1-[N'-Deoxycytidyl], 2-[N'-  
 deoxyguanosinyl]ethane  
 DNA, 3102  
 Glioma
- Urea, 1,3-bis(2-chloroethyl)-1-nitroso-  
 (cont'd)**  
 Morphology/growth rate/  
 chemosensitivity, 992  
 Nicotinamide, 6-amino-  
 L1210 leukemia cells, 4382  
 Drug synergism, 4382  
 Theophylline  
 L1210 leukemia cells, 2742
- Urea, 1-(2-chloroethyl)-3-(4-methylcyclohexyl)-1-nitroso-**  
 Melanoma  
 Tumor growth, mouse, 838  
 Uracil, 5-fluoro-  
 BE human colon neoplasm cells  
 5172  
 HT-29 colon adenocarcinoma  
 cells, 5172  
 Drug synergism, 5172
- Urea, 1-(2-chloroethyl)-3-cyclohexyl-1-nitroso-**  
 Bone marrow  
 DNA adduct removal, 2605  
 L1210 leukemia cells  
 DNA adduct removal, 2605
- Urea, 1-(2-chloroethyl)-3-(β-D-glucopyranosyl)-1-nitroso-**  
 Bone marrow  
 DNA adduct removal, 2605  
 L1210 leukemia cells  
 DNA adduct removal, 2605
- Urea, 1-(2-chloroethyl)-3-(2',3',4'-tri-O-acetyl,  
 ribopyranosol)-1-nitroso-**  
 Antineoplastic agents  
 Metabolism/distribution agents  
 525
- Urea, chloroethylnitroso- compounds**  
 9L rat brain tumor cells  
 Cytotoxicity, dose-response relationships, 1008
- Urea, N-ethyl-N-nitroso-**  
 Neurinoma  
 Transplacental/postnatal administration, rat, 1038
- Urea, hydroxy-**  
 CRL 1187 human fibroblast cells  
 DNA repair, 145  
 Cytosine, 1-β-D-arabinofuranosyl-  
 Cytotoxicity, in vitro, 4339  
 Drug synergism, 4339  
 Sarcoma 180, 4339  
 DNA repair  
 CRL 1187 human fibroblast cells  
 145  
 Ribonucleotide reductase  
 L1210 leukemia cells, 4353
- Urea, N-methyl-N-nitroso-**  
 Colon neoplasms  
 Carcinogenesis, rat, 5050  
 Estrogens
- Urea, N-methyl-N-nitroso- (cont'd)**  
 Tumor growth, rat, 3492  
 Mammary neoplasms  
 Lactation, 1355  
 Mouse blastocysts  
 Viability vs amino acid uptake  
 864  
 Prolactin  
 Tumor growth, rat, 3492  
 Retinyl acetate  
 Tumor growth prevention, rat  
 2639
- Urea, 1-propyl-1-nitroso-**  
 Metabolism, rat, 3837
- Ureas, halo ethylnitroso-**  
 Antineoplastic agents  
 DNA modification, 4460
- Uridine**  
 Uracil, 5-fluoro-  
 DNA synthesis, 3964  
 Drug toxicity, mouse, 3964
- Uridine, 5-bromo-2'-deoxy-**  
 Urea, 3-[(4-amino-2-methyl-5-pyrimidinyl)methyl]-  
 L1210 leukemia cells, 4079  
 DNA cross-linking, 4079
- Uridine diphosphate-  
 glucuronyltransferase**  
 Hepatoma, Morris 7777/9121  
 Enzyme activity, preneoplastic/  
 neoplastic hepatocytes, 3747
- Uridine, 5-fluoro-**  
 L1210 leukemia cells  
 Drug resistance vs enzyme activity, 965  
 Drug sensitivity vs resistance  
 956  
 P388 mouse leukemia cells  
 Drug resistance vs enzyme activity, 965  
 Drug sensitivity vs resistance  
 956
- Uridine, 5-fluoro-2'-deoxy-**  
 Antiproliferative activity  
 4 Murine tumor cell lines, 2412  
 MCF-7 breast cancer cells  
 DNA/RNA binding, in vitro  
 3005  
 L1210 leukemia cells  
 Drug resistance vs enzyme activity, 965  
 Drug sensitivity vs resistance  
 956  
 P388 mouse leukemia cells  
 Drug resistance vs enzyme activity, 965  
 Drug sensitivity vs resistance  
 956
- Uridine, 5-iodo-2'-deoxy**  
 Genes, viral  
 AKR mouse embryo cells, 3050  
 Mouse strain cell lines, 3050

**Uridine kinase**  
3-Deaza-6-azaUrd  
L1210 leukemia cells, 100

**Uridine, tetrahydro-**  
Cytosine, 1- $\beta$ -D-arabinofuranosyl-  
Pharmacokinetics, cerebrospinal  
fluid, monkey, 1736

**Urine**  
Bladder neoplasms  
Carcinogenesis, rat, 15  
Molecular weight fractionation  
Carcinogenesis, rat, 15

## V

**Vaccine**  
Meth-A tumor cells  
Immunotherapy, 2872

**Valinomycin**  
Phenethylbiguanide  
Drug synergism, 3592  
Leukemia L1210, 3592

**Verapamil**  
Blood circulation  
Mammary neoplasms, 3944  
Tumor-bearing rat, 3944

**Video fluorescence microscopy**  
Nickel sulfide  
CHO cells, 2729  
P388 leukemia cells  
Adriamycin, 3583

**Vimetin**  
Cell differentiation  
HL-60 human leukemia cells  
5106  
U-937 human leukemia cells  
5106

**Vinblastine**  
Actin  
CCRF-CEM leukemia cells, 1384  
Drug mechanism of action, 1384  
HeLa cells  
Accumulation/release, in vitro  
3798  
Drug synergism  
 $\gamma$ -Rays, 5231  
Tumor growth, mouse, 5231  
 $\alpha$ -Fetoprotein  
Germ cell neoplasms, 4855  
Gonadotrophins, chorionic  
Germ cell neoplasms, 4855  
Tubulin  
CCRF-CEM leukemia cells, 1384  
Drug mechanism of action, 1384  
Vincristine  
Accumulation/release, in vitro  
3798

**Vincristine**  
Calcium  
P388 mouse leukemia cells, 4730  
Calmodulin  
P388 mouse leukemia cells, 4730

**Vincristine (cont'd)**  
Glucocorticoids  
Cell cycle kinetics, 1686  
Methotrexate  
Ehrlich ascites tumor cells, 2532  
Poly- $\gamma$ -glutamyl derivatives, 2532  
Ricin  
Leukemia L1210, 2152  
Vinblastine  
Accumulation/release, in vitro  
3798

**Vinculin**  
Metastases  
K-1735 melanoma cells, 5183  
UV-2237 mouse fibrosarcoma  
cells, 5183

**S-Vinylhomocysteine**  
Carcinogenic/mutagenic/biochemical  
activities, 4364

**Virus, adeno 2**  
Cell transformation, viral  
LSH hamster embryo cells, 939

**Virus, adeno 5**  
Telocidin  
CREF Fischer rat embryo cells  
2829  
12-O-Tetradecanoylphorbol-13-  
acetate  
CREF Fischer rat embryo cells  
2829

**Virus, adeno 12**  
Cell transformation, viral  
LSH hamster embryo cells, 939

**Virus, AKR-murine leukemia**  
Cell transformation, neoplastic  
DNA, viral, 569

**Virus, avian leukosis**  
Concanavalin A  
Immunosuppression, 3617

**Virus, avian sarcoma**  
Antigens, viral  
Tumor regression, chicken, 1669

**Virus, Epstein-Barr**  
LNPL human nasopharyngeal lym-  
phoma cells  
Antigens, viral, 1368  
Immunity, cellular  
Natural vs antibody-dependent  
cell-mediated cytotoxicity  
1208

**Virus, Feline leukemia**  
Antigens, viral  
Alloantiserum/alloantigen reac-  
tion, 3995  
Leukocytes, cat, 3995

**Virus, Friend murine leukemia**  
Sister chromatid exchanges  
Hematopoietic organs, mouse, in  
vivo, 4753

**Virus, H-1 paro-**  
Benz(a)anthracene, 7,12-dimethyl-

**Virus, H-1 paro- (cont'd)**  
Tumor growth prevention, new-  
born hamster, 2552

**Virus, hepatitis B**  
Alcohol  
Hepatoma, 5246  
Diet  
Hepatoma, 5246  
Smoking  
Hepatoma, 5246

**Virus, herpes simplex 2**  
Cell transformation, viral  
HEF hamster embryo fibroblast  
cells, 2350

**Virus, herpes-type**  
*Cynops pyrrhogaster*  
Tumor incidence, 3741  
Skin neoplasms  
*Cynops pyrrhogaster*, 3741

**Virus, Kirsten murine sarcoma**  
Cell differentiation  
Biochemical markers, 618  
FRT-L rat thyroid cells, 618  
T-79 rat thyroid cells, 618

**Virus, MAV-2(O)**  
Concanavalin A  
Immunosuppression, 3617

**Virus, Moloney murine sarcoma**  
Cell transformation, viral  
MMC-E mouse embryo epithelial  
cells, 2407  
Fibrosarcoma  
Animal tumor model, quail, 2523  
Glycoproteins  
Cell transformation, viral, 1147  
Lymphosarcoma  
Animal tumor model, quail, 2523

**Virus, murine mammary tumor**  
Mammary neoplasms  
Antigens, neoplasm, 4325  
Antigens, viral, 4325

**Virus, murine leukemia**  
Cell transformation, viral  
MMC-E mouse embryo epithelial  
cells, 2407  
Glycoproteins  
Cell transformation, viral, 1147  
Lymphoma(s)  
Virus relationship to tumor cells,  
mouse, 4650  
X-rays, 4650

**Virus, papilloma**  
Epidermodysplasia verruciformis  
DNA, 2440  
Isolation/characterization, case  
report, 2440

**Virus, Rauscher murine**  
Antibodies, monoclonal  
Leukemia-cell targeting, mouse, in  
vivo, 44

- Virus, Rauscher murine leukemia**  
P815 mastocytoma cells  
Proteins, viral, 3828
- Virus, reticuloendotheliosis**  
Cell transformation, viral  
Chick spleen cells, 2722
- Virus, retro-**  
B16 melanoma cells  
Virus production vs tumor immunity, beige mouse, 2562  
Chick spleen cells  
Cell transformation, viral, 2722  
Genes, viral  
AKR mouse embryo cells, 3050
- Virus, Rous sarcoma**  
*Src* gene  
Isolation/characterization, teleostean fish, 2429  
*Xiphophorus*  
Cell transformation, neoplastic 4222
- Virus, simian sarcoma**  
Leukemia, myelocytic  
Case report, 681  
Serological evidence of infection 681
- Virus, SV40**  
Cell transformation, neoplastic  
Syrian hamster embryo cells 4116  
Cell transformation, viral  
LSH hamster embryo cells, 939  
Fucose, 3022  
Epithelial cells  
Breast milk, human, 2040  
Cell transformation, viral, 2040  
SV3T3 fibroblast cells  
Amino acids, 4690  
Growth rate vs cell density, 4690  
12-O-Tetradecanoylphorbol-13-acetate  
Keratinocytes, 4600
- Vitamin A**  
*see also* Retinoic acid; 13-*cis*-Retinoic acid; Retinoids; Retinyl acetate  
HL-60 leukemia cells  
Cell differentiation, 3928  
U-937 human histiocytic lymphoma cells  
Cell differentiation, 3924, 3928  
Hepatoma  
Anti-carcinogenesis mechanism, rat, 2450  
Mammary neoplasms  
Tumor growth prevention, rat 2639  
Phase I/II clinical trials, 2069  
Pharmacokinetics, human, 2087  
Plasminogen activator  
UCT-Mel 1 human melanoma cells, 5191  
Protein  
Isolation and characterization, liver, human, 1033
- Vitamin A (cont'd)**  
Stomach neoplasms  
Tumor incidence, W/W genotype mouse, 3806
- Vitamin B<sub>6</sub>**  
Pyridoxal phosphate  
Normal/neoplastic, fetal/neonatal/adult liver, 3538  
Pyridoxine kinase  
Normal/neoplastic, fetal/neonatal/adult liver, 3538  
Pyridoxine phosphate kinase  
Normal/neoplastic, fetal/neonatal/adult liver, 3538
- Vitamin C**  
*see also* Ascorbic acid  
C3H/10T1/2 mouse embryo cells  
Cell transformation, neoplastic 1041  
Phorbol-12,13-dibutyrate  
Binding, brain cortex, calf, in vitro, 1227
- Vitamin D3, 1,25-dihydroxy-**  
A549 lung carcinoma cells, 856  
CCL 53.1 human melanoma cells 856  
G-361 human melanoma cells, 856  
Hs0578T breast cancer cells, 856  
Huk-HeLa human kidney/cervical cells  
Receptors, vitamin, 856  
Human fibroblast cells  
Receptors, vitamin, 856  
Neoplastic cells, human  
Receptors, vitamin, 1116
- Vitamin E**  
*see also*  $\alpha$ -Tocopherol  
B16 melanoma cells  
Growth inhibition vs morphological alterations, 550  
L-cells fibroblasts  
Growth inhibition vs morphological alterations, 550
- Vitamins**  
Anti-tumor effects  
Review, 756s
- VM-26**  
*see* Teniposide
- VP-16-213**  
*see* Etoposide
- W**
- Warfarin**  
Uracil, 5-fluoro-  
Colon neoplasms, 4827
- Water, heavy**  
Methotrexate  
Tumor growth, mouse, 1125
- Weight loss**  
Luteinizing hormone
- Weight loss (cont'd)**  
Cancer patients prior to therapy 2495  
Testosterone  
Cancer patients prior to therapy 2495
- Wilms' tumor**  
*see* Kidney neoplasms
- WR-2721**  
Radioprotection  
Activity, AKR mouse, 4330  
Leukemia, 4330  
Nitrogen mustard, 4330
- X**
- X-ray crystallography**  
Benzo(a)pyrene, 7,8,9,10-tetrahydroxy-7,8,9,10-tetrahydro-  
Stereochemistry, 3766
- X-rays**  
Adriamycin  
Survival, normal rat, 2656  
Anthraquinone, dihydroxy-  
Survival, normal rat, 2656  
Ataxia telangiectasia  
Skin fibroblasts, in vitro, 3950  
Brain neoplasms  
1,4-Cyclohexadiene-1,4-dicarbamate, 812  
Procabazine, 812  
Urea, 1,3-bis(2-chloroethyl)-1-nitroso-, 812  
DLD-1 human colon carcinoma cells  
Formamide, *N,N*-dimethyl-, 30  
Cyclophosphamide  
Dose-response study, mouse 1943  
Dithiocarbamate, diethyl-  
HA-1 Chinese hamster cells 3074  
DNA repair, 3074  
DNA repair  
*Saccharomyces cerevisiae*, 929  
DNA synthesis  
Ataxia telangiectasia, 335  
Hyperthermia  
Bone marrow, 1261  
Leukemia  
Tumor model, Fischer rat, 433  
Lymphoma(s)  
Virus relationship to tumor cells, mouse, 4650  
Mammary neoplasms  
Tumor model, Fischer rat, 433  
Virgin/pregnant/lactating rat, 50  
Neoplasm cell heterogeneity  
DLD-1 human colon carcinoma cells, 2556  
LX1 human lung carcinoma cells 2556  
12-O-Tetradecanoylphorbol-13-acetate  
C3H/10T1/2 mouse embryo cells 477

**X-rays (cont'd)**

- Oxygen
  - Antineoplastic agents, 4921
  - Mammary neoplasms, 4921
- Phosphorothioic acid, *S*-(2-(3-aminopropylamino)ethyl) ester
  - Radioprotective activity, mouse 1888
- Retinoblastoma
  - DNA repair, 1343
- Virus, murine leukemia
  - Lymphoma(s), 4650

**Xeroderma pigmentosum**

- Chromosome aberrations
  - Cancer incidence, 3252
- DNA repair
  - Cytosine, 1- $\beta$ -D-arabinofuranosyl-145

**Xeroderma pigmentosum (cont'd)**

- DNA-protein cross-linking agents 145
  - Formaldehyde, 145
  - Platinum(II),diamminedichloro-, *trans*-, 145
  - Potassium chromate, 145
- Methanesulfonic acid, methyl ester
  - DNA repair, 860
- Ultraviolet rays
  - DNA repair, 860
  - RNA synthesis, 1473

**Xiphophorus**

- Cell transformation, neoplastic
  - Genetic regulation, 4222
  - Virus, Rous sarcoma, 4222

**Z**

**Zinc**

- Anti-tumor effects
  - Review, 756s
- PC-3 prostatic carcinoma cells
  - Hormonal regulation, 2
- Immune response, mouse/human
  - Review, 737s
- Melphalan
  - CHO cells, 2980
  - Drug toxicity, 2980

**Zonulae occludentes**

- RBTCC-5 rat bladder cancer cells
  - Proteases, 2289
  - Ultrastructural study, rat, 2289



## Contents of Volume 42, 1982

January, Number 1

- Editorial. P. N. Magee.
  - BASIC SCIENCES**
  - \* 2 Hormonal Regulation of Zinc Metabolism in a Human Prostatic Carcinoma Cell Line (PC-3). Penelope J. Giles and Robert J. Cousins.
  - 8 Alkylation of  $N^7$  in Deoxyguanosine by Dehydroretroretrocinic, a Carcinogenic Metabolite of the Pyrrolizidine Alkaloid Monocrotaline. Kent A. Robertson.
  - 15 Effects of Rat Urine Fractionated by Molecular Weight on Urinary Bladder Carcinogenesis. Katsuhiko Babay, Yukitada Miyata, Joan S. Chmielewski, and Ryoichi Oyama.
  - 25 Inhibition of Pancreatic Carcinogenesis by Retinoids in Azaserine-treated Rats. Daniel S. Longnecker, Thomas J. Curphey, Elna T. Kuhlmann, and Bill D. Roebuck.
  - 25 Tumorigenicity of Bay-Region Diol-Epoxides and Other Benzo-Ring Derivatives of Dibenz(a,h)pyrene and Dibenz(a,h)pyrene on Mouse Skin and in Newborn Mice. Richard L. Chang, Wayne Levin, Alexander W. Wood, Roland E. Lehr, Subodh Kumar, Haruhiko Yagi, Donald M. Jerina, and Allan H. Conney.
  - \* 30 Alteration of the Survival Response of Two Human Colon Carcinoma Subpopulations to X-Irradiation by  $N,N$ -Dimethylformamide. John T. Leith, Lynn A. Gaskins, Daniel L. Dexter, Paul Calabresi, and Arvin S. Glicksman.
  - 35 Influence of Prolactin and Growth Hormone on Rat Mammary Tumors Induced by  $N$ -Nitrosomethylurea. David P. Rose and John J. Noonan.
  - 39 Membrane Glycoproteins from Chemically Transformed Cells: Comparison between Mesenchymal and Epithelial Cell Lines Derived from Dimethylnitrosamine-treated Rat Kidney. Mark H. Ratchesky, Gordon C. Hard, and Mary Catherine Glick.
  - 44 Leukemic Cell Targeting and Therapy by Monoclonal Antibody in a Mouse Model System. David A. Scheinberg and Mette Strand.
  - 50 Radiation-induced Mammary Carcinogenesis in Virgin, Pregnant, Lactating, and Postlactating Rats. Seymour Holtzman, John Patrick Stone, and Claire J. Shellabarger.
  - 54 Comparative Metabolism of 2,6-Dimethylnitrosomorpholine in Rats, Hamsters, and Guinea Pigs. Brenda Underwood and William Lijinsky.
  - 59 Comparison of the *in Vitro* Metabolism of  $N$ -Nitrosohexamethyleneimine by Rat Liver and Lung Microsomal Fractions. Lanny I. Hecker and Gary A. McCluskey.
  - 65 Effect of Regenerative Hyperplasia on the Urinary Bladder. Carcinogenicity of Sodium Saccharin and  $N$ -(4-(5-Nitro-2-furyl)-2-thiazolyl)formamide. Samuel M. Cohen, Genji Murasaki, Shoji Fukushima, and Robert E. Greenfield.
  - 72 Isolation of Quiescent Cells from Multicellular Tumor Spheroids Using Centrifugal Elutriation. Kenneth D. Bauer, Peter C. Keng, and Robert M. Sutherland.
  - 79 *In Vivo* RNA Synthesis in the Hearts of Adriamycin-treated Rats. David G. Dalbow and Roger S. Jaenke.
  - \* 84 Different Activities of Unscheduled DNA Synthesis in Human Melanoma and Bone Marrow Cells. Rolf Lewensohn, Ulrik Ringborg, and Johan Hansson.
  - 89 Effect of 1,2-Dimethylhydrazine and Dimethylnitrosamine on Cell Replication and Unscheduled DNA Synthesis in Target and Nontarget Cell Populations in Rat Liver following Chronic Administration. James G. Lewis and James A. Swenberg.
  - 93 *In Vivo* Growth of Tumor Cell Spheroids after *In Vitro* Hyperthermia. Jacques M. Landry, Edith M. Lord, and Robert M. Sutherland.
  - 100 Cytotoxicity of a New Uridine Analog, 4-Hydroxy-1- $\beta$ -D-ribofuranosylpyridazine-6-one, and its Interaction with Uridine Kinase. Linda C. Bloomer, Linda L. Wotring, and Leroy B. Townsend.
  - \* 107 Lethal Activity and Kinetic Response of Cultured Human Cells to 4-(9-Acridinylamino)methanesulfon-m-aniside. B. Drewinko, L. Y. Yang, and B. Barlogie.
  - 112 Molecular Transformation of Tumor Adenylosuccinate Synthetase and Characteristics of Its Converting Factor. Yoshihiro Matsuda, Hiroshi Shiraki, and Hachiro Nakagawa.
  - \* 117 Cytokinetic and Biochemical Effects of 5-Iminodaurorubicin in Human Colon Carcinoma in Culture. Robert I. Glazer, Kathleen D. Hartman, and Carol L. Richardson.
  - 122 Damaging Effects of Fourteen Chemotherapeutic Drugs on Mouse Testis Cells. Marvin L. Meistrich, Marcia Finch, Miguel F. da Cunha, Ursula Hacker, and William W. Au.
  - 132 Turnover and Transport of Plasma Very-Low-Density Lipoprotein Triglycerides in Mice Bearing Ethical Asites Carcinoma. Irving Lion, Ramaswamy Kannan, Murad Ockhtens, and Nome Baker.
  - \* 139 Effects of Estrogens and Antiestrogens on Estrogen Receptor Dynamics and the Induction of Progesterone Receptor in MCF-7 Human Breast Cancer Cells. Richard L. Eckert and Benita S. Katzenellenbogen.
  - \* 145 Detection of DNA Single-Strand Breaks Produced during the Repair of Damage by DNA Protein Cross-Linking Agents. A. J. Fornace, Jr.
  - \* 150 Monoclonal Antibody-defined Human Lung Cell Surface Protein Antigens. Therese Mazaucic, Kenneth F. Mitchell, Geoffrey J. Letchworth, III, Hilary Koprowski, and Zenon Stelpewski.
  - 155 Correlation of Circulating Levels of a Serum Protein with Triiodothyronine Levels and Hepatoma Growth. Mona L. Coetzee, John Short, Katherine Klein, and Peter Ove.
  - 161 Effects of Liposome Structure and Lipid Composition on the Activation of the Tumoricidal Properties of Macrophages by Liposomes Containing Muramyl Di-peptide. Alan J. Schroit and Isaiah J. Fidler.
  - \* 168 Fibronectin and Gel Filtration Acidic Protein Expression in Normal Human Brain and Anaplastic Human Gliomas. Trevor R. Jones, Erkki Ruoslahti, S. Clifford Schold, and Dorel D. Bigner.
  - 178 Significance of Cellular Pharmacokinetics for the Cytotoxic Effects of Daunorubicin. Bore Andersson, Miloslav Beran, Curt Peterson, and Bernhard Tribukait.
  - \* 184 Continued Expression of *Vinca* Alkaloid Resistance by CCRF-CEM Cells after Treatment with Tunicamycin or Pronase. William T. Beck and Margaret C. Curtin.
  - 190 Phorbol Myristate Acetate-induced Adherence of Walker 256 Carcinosarcoma Cells. James Varani and Joseph C. Fantone.
  - 198 Induction of Lymphoma in Antigenically Stimulated Athymic Mice. Stephen M. Baird, Gillian M. Beattie, Robert A. Lannon, Joseph S. Lipsick, Fred C. Jensen, and Nathan O. Kaplan.
  - 207 Role of Tumor Cell Membrane-bound Serine Proteases in Tumor-induced Target Cytolysis. John F. DiStefano, Gregory Beck, Bernard Lane, and Stanley Zucker.
  - \* 219 Plasminogen Activator Activity and Composition in Human Breast Cancer. John L. Evers, Jashbhai Patel, Judith M. Madeja, Sarah L. Schneider, Grant H. Hobika, Sarah M. Camillo, and Gabor Merkus.
  - 227 Liver Cell Membrane Alkylant Antigens as Cellular Markers in Genotypic Mosaic Rat Livers Undergoing Chemically Induced Hepatocarcinogenesis. John M. Hunt, Mark T. Buckley, Paul A. Omnick, Philip B. Roife, and Brian A. Lashes.
  - 237 Influence of Convection in the Growth Medium on Oxygen Tensions in Multicellular Tumor Spheroids. Wolfgang F. Mueller-Klieser and Robert M. Sutherland.
  - 243 Transferrin in the Rat Prostate Dunning Tumor. Elizabeth M. Wilson, Frank S. French, and Peter Petrusz.
  - 252 Alteration in Spleen Lymphoid Populations Associated with Specific Amino Acid Depletion during Asparaginase Treatment. John A. Distasio, Donald Durden, Ronald D. Paul, and Mehrdad Nadj.
  - 259 Excessive Accumulation of Autofluorescent Lipofuscin in the Liver during Hepatocarcinogenesis by Methyl Clofenapate and Other Hypolipidemic Peroxisome Proliferators. Janardan K. Reddy, Narendra D. Lalwani, M. Kumudavalli Reddy, and Saeed A. Qureshi.
  - \* 267 Expression of Human Fetal Brain Antigens by Human Tumors of Neuroectodermal Origin as Defined by Monoclonal Antibodies. Carol J. Wikstrand and Dorel D. Bigner.
  - 276 Inhibitory Effects of Four Isoabirins on the Growth of Sarcoma 180 Cells. Jung-Yaw Lin, Te-Chang Lee, and Ta-Cheng Tung.
  - 280 Differential Effect of Imidazole Antibiotics on Untransformed and Virus-transformed Rat Cell Lines. Michiko Kuwano, Shin-ichi Akiyama, Masae Kaneko, Kiyonobu Ikezaki, Ryoisaburo Takaki, and Genki Kimura.
  - 285 Rapid Induction of  $\gamma$ -Glutamyl Transpeptidase-rich Intraepithelial Clones in 7,12-Dimethylbenz(a)anthracene-treated Hamster Buccal Pouch. Dennis B. Solt and Gerald Shklar.
  - 292 Isolation of Lung Carcinoma-associated Antibodies from Immune Complexes and Production of Heterologous Antisera. William J. Cronin, Brent H. Dorsett, and Harry L. Joachim.
  - 301 Reproducible Growth in Tissue Culture of Retinoblastoma Tumor Specimens. Brenda L. Gallie, Wendy Holmes, and Robert A. Phillips.
  - 306 Perinatal Changes of  $\alpha$ -Fetoprotein Concentration in the Serum and its Synthesis in the Liver of Anabulminemic Rats. Hiroyasu Esumi, Yori Takahashi, Michiko Seki, Shigeaki Sato, Sumi Nagase, and Takashi Sugimura.
  - 309 Reduction of Adriamycin Toxicity by Ascorbate in Mice and Guinea Pigs. Keisuke Fujita, Kan Shino, Keiki Yamada, Tazsan Sato, Hajime Nimi, Mikihiko Shamoto, Toshiharu Nagatsu, Tomio Takeuchi, and Hamsuo Umezawa.
  - \* 317 Tamoxifen and Metabolites in MCF-7 Cells: Correlation between Binding to Estrogen Receptor and Inhibition of Cell Growth. Ericque Coezy, Jean-Louis Borgna, and Henri Rochefort.
  - \* 324 Purine Deoxynucleoside Toxicity in Nondividing Human Lymphoid Cells. Richard F. Kefford and Richard M. Fox.
  - 331 Effect of  $\beta$ -Glucuronidase Inhibitor on Azoxymethane-induced Colonic Carcinogenesis in Rats. Hideo Takada, Takao Hirooka, Yoshitomo Hiramatsu, and Masakatsu Yamamoto.
  - \* 335 Abnormal Regulation of DNA Replication and Increased Lethality in *Ataxia Telangiectasia* Cells Exposed to Carcinogenic Agents. N. G. J.aspers, J. de Wit, M. R. Regulski, and D. Bootsma.
  - 342 Effects of the Phorbol Ester 4-O-Methyl-12-O-Tetradecanoylphorbol-13-acetate on Mouse Skin *in Vivo*: Evidence for its Uselessness as a Negative Control Compound in Studies on the Biological Effects of Phorbol Ester Tumor Promoters. Gerhard Furstenberger, Hartmut Richter, Thomas S. Argyris, and Friedrich Marks.

CLINICAL INVESTIGATIONS

- 349 Surface Marker Identification of Small Cleaved Follicular Center Cell Lymphomas with a Highly Favorable Prognosis. Richard A. Rudders, Ernest T. Ahl, Jr., Ronald A. Delellis, Stephanie Bernstein, and Colin B. Begg.
- 354 Phase I Clinical Trial of 9,10-Anthracene Dicarboxaldehyde (Bisantrone) Administered in a Five-Day Schedule. Robert J. Spiegel, Ronald H. Blum, Mark Levin, Carolina A. Pinto, James C. Wernz, James L. Speyer, Kim S. Hoffman, and Franco M. Muggia.

BASIC SCIENCES

- 381 Editorial. P. N. Magee.
- 382 Aberrant and Nonrandom Methylation of Chromosomal DNA-binding Proteins of Colonic Epithelial Cells by 1,2-Dimethylhydrazine. Lidia C. Boffa, Rosemarie J. Gruss, and Vincent G. Alfrey.
- 389 Multistep Origin of Tumor-forming Ability in Chinese Hamster Embryo Fibroblast Cells. Barbara Lynn Smith and Ruth Sager.
- 397 Tumor Sponge Implantation: An *In Vivo* Method for Studying Syngeneic, Primary Antitumor Lymphocyte Responses. Daniel A. Waller, Steven J. Mentzer, and Scott E. Maize.
- 405 Inhibition of Collagen Accumulation by Glucocorticoids in Rat Lung after Intratracheal Bleomycin Instillation. Kenneth M. Sterling, Jr., Thomas DiPetrillo, Kenneth R. Cutroneo, and Archie Prestayko.
- \* 409 Monoclonal Antibody against A. Lewis X Antigen Produced by the Hybridoma Immunized with a Pulmonary Carcinoma. Yuichi Iwaki, Masaharu Kasai, Paul I. Terasaki, Domenico Bernoco, Min Sik Park, James Ciccirelli, Roswitha Heintz, Romaine E. Saxton, Martyn W. Burk, and Donald L. Morton.
- 412 Stimulation of DNA Synthesis and Cell Proliferation in the Liver of Rats Fed a Choline-devoid Diet and Their Suppression by Phenobarbital. Samuel E. Abanobi, Benito Lombardi, and Hisashi Shinzuka.
- 416 Association of Impaired Immune Responsiveness of Lymphocytes from Animals Bearing Large Tumors with a Membrane-bound Suppressive Substance. Bosco Shang Wang, Eloise H. Heacock, Suzanne R. Onikul, Zheng Chang-xue, Tien-hsi Young, and John A. Mannick.
- 421 Molecular Basis for Increased Synthesis of Albumin in Rat Liver after Thioacetamide Administration. Pran K. Chakrabarty, Sair K. Chattopadhyay, and Walter C. Schneider.
- 429 Effect of the Suspected Tumor Promoters Saccharin, Cycamate, and Phenol on Nerve Growth Factor Binding and Response in Cultured Embryonic Chick Ganglia. Douglas N. Ishii.
- 433 Paradoxical Effect of Radiation on Tumor Incidence in the Rat: Implications for Radiation Therapy. Samuel Hellman, William C. Moloney, and William A. Meissner.
- 437 Sensitivity to Two-Stage Carcinogenesis of SENCAR Mouse Skin Grafted to Nude Mice. S. H. Yuspa, E. F. Spangler, R. Donahoe, S. Geusz, E. Ferguson, M. Wenk, and H. Hennings.
- 440 Activity of a Novel Anthracenyl Bishydrazone, 9,10-Anthracenedicarboxaldehyde Bis[4-(4-dihydro-1H-imidazo[2,1-b]hydrazono)] Dihydrochloride, against Experimental Tumors in Mice. Ronald V. Citarella, Roslyn E. Wallace, K. C. Murdock, Robert B. Angier, Frederick E. Durr, and Martin Forbes.
- \* 445 Induction of Differentiation of HL-60 Cells by Dimethyl Sulfoxide: Evidence for a Stochastic Model Not Linked to the Cell Division Cycle. Corrado Tarella, Dario Ferrero, Eugenio Gallo, Giovanni Luca Pagliardi, and Francis W. Ruscetti.
- 450 *In Vivo* Kinetics of Thymidylate Synthetase Inhibition in 5-Fluorouracil-sensitive and -resistant Murine Colon Adenocarcinomas. C. Paul Spears, Antrank H. Shahinian, Richard G. Moran, Charles Heidelberger, and Thomas H. Corbett.
- \* 457 Monoclonal Antibody-Ricin A Chain Conjugate Selectively Cytotoxic for Cells Bearing the Common Acute Lymphoblastic Leukemia Antigen. Vic Raso, Jerome Ritz, Marylu Basala, and Stuart F. Schlossman.
- 465 Application of Quantitative Stereology to the Evaluation of Enzyme-altered Foci in Rat Liver. H. A. Campbell, H. C. Pitot, Van R. Potter, and B. A. Laishes.

- 359 Effect of Estrogen and Progesterone on Cellular Replication of Human Breast Tumors. Thomas L. Dao, Dilip K. Sinha, T. Nemoto, and J. Patel.
- 363 Relationship between Natural Killer Cell Activity and Histological Features of Lymphocyte Infiltration and Partial Regression of the Primary Tumor in Melanoma Patients. Peter Hersey, Anthony Hobbs, Anne Edwards, William H. McCarthy, and Vincent J. McGovern.

369 Announcements

370 Errata

371 Instructions to Authors

379 Author Index

February, Number 2

- 473 Selective Effect of the Metalloproteinase Beryllium on Hormonal Regulation of Gene Expression in Cultured Cells. Stephanie T. Perry, Suhas B. Kulkarni, Kai-Lin Lee, and Francis T. Kenney.
- 477 Enhanced Transformation of Mouse 10T1/2 Cells by 12-O-Tetradecanoylphorbol-13-acetate following Exposure to X-Rays or to Fission-Spectrum Neutrons. A. Han and M. M. Elkind.
- \* 484 Decreased Synthesis of High-Molecular-Weight Glycopeptides in Human Promyelocytic Leukemic Cells (HL-60) during Phorbol Ester-induced Macrophage Differentiation. Giulio Cossu, Alice L. Kuo, Silvana Pessano, Leonard Warren, and Richard A. Cooper.
- 490 Impairment of Feeding Response to Cold Exposure of Rats Bearing Walker 256 Carcinoma. S. D. Morrison.
- 496 Involvement of Macrophages in the Eradication of Established Metastases following Intravenous Injection of Liposomes Containing Macrophage Activators. I. J. Fidler, Z. Barnes, W. E. Fogler, R. Kirsh, P. Bugelski, and G. Poste.
- \* 502 Methotrexate Rescue by 5-Methyltetrahydrofolate or 5-Formyltetrahydrofolate in Lymphoblast Cell Lines. Nicholas P. B. Dudman, Peter Slowiaczek, and Martin H. N. Tattersall.
- 508 Enhanced Inhibition of Mammary Carcinogenesis by Combined Treatment with N-(4-Hydroxyphenyl)-retinamide and Ovarectomy. David L. McCormick, Rajendra G. Mehta, Carol A. Thompson, Nancy Dinger, Joy A. Caldwell, and Richard C. Moon.
- 513 Effect of Dexamethasone on Hexamethylene Biscetamide-induced Friend Cell Erythroid Differentiation. H. Beverley Osborne, Anthony C. Bakke, and John Yu.
- \* 519 Dose- and Schedule-dependent Activation and Drug Synergism between Thymidine and 5-Aza-2'-deoxycytidine in a Human Promyelocytic Leukemia Cell Line. Steven Grant, Frank Rauscher, III, Judy Margolin, and Ed Cadman.
- 525 Disposition and Metabolism of 1-(2-Chloroethyl)-3-(2',3',4'-tri-O-acetyl, ribopuranyloxy)-1-nitrosourea in Rats. Denise Goddard, Marie-France Morneau, Jean-Claude Madelmont, Jacques Duprat, and Robert Plagne.
- 530 Effects of High-Dose Methotrexate and Leucovorin on Murine Hemopoietic Stem Cells. Ivo Pannacucci, Giulio Massa, Giuseppe Bogliolo, Riccardo Gho, and Alberto Sobrero.
- \* 535 Chemotherapy of Childhood Rhabdomyosarcomas Growing as Xenografts in Immune-deprived Mice. Janet A. Houghton, Peter J. Houghton, and Alexander A. Green.
- \* 540 Fluoresceinated Estrone Binding by Human and Mouse Breast Cancer Cells. Bernard Fisher, Nurten Gunduz, Shu Zheng, and Elizabeth A. Saffer.
- 550 Effects of Tocopherol (Vitamin E) Acid Succinate on Morphological Alterations and Growth Inhibition in Melanoma Cells in Culture. Kedar N. Prasad and Judith Edwards-Prasad.
- 556 Chlorpromazine Distribution in Hamsters and Mice Bearing Transplantable Melanoma. Ralph G. Fairchild, Dennis Greenberg, Karen P. Watts, Samuel Packer, Harold L. Atkins, Prantika Som, Stephen J. Hannan, A. Bertrand Brill, Irwin Fand, and William P. McNally.
- \* 563 Induction of Alkaline Phosphatase Activity in Cultured Human Intracranial Tumor Cells. Nobuko Takahara, Fritz Herz, Robert M. Singer, Asao Hirano, and Leopold G. Koss.
- 569 Organization and Expression of Endogenous Virus-like (VL30) DNA Sequences in Nontransformed and Chemically Transformed Mouse Embryo Cells in Culture. Michael G. Courtney, Lucy J. Schmidt, and Michael J. Getz.

- 577 Expression of the Tumor Aldehyde Dehydrogenase Phenotype during 2-Acetylaminofluorene-induced Rat Hepatocarcinogenesis. Ronald Lindahl, Susan Evces, and Wen-Lu Sheng.
- \* 583 Tissue Distribution, Molecular Profile, and Shedding of a Cytoplasmic Antigen Identified by the Monoclonal Antibody 465.12S to Human Melanoma Cells. Pier G. Natali, Barry S. Wilson, Kohzoh Imai, Aldo Bigotti, and Soldano Ferrone.
- 590 Mouse Embryonic Transforming Growth Factors Related to Those Isolated from Tumor Cells. Daniel R. Twardzik, Jane E. Ranchalis, and George J. Todaro.
- \* 594 Tumor-associated Chromatin Antigens of Human Colon Adenocarcinoma Cell Lines HT-29 and LoVo. David M. Duhi, Zaimy Banjar, Robert C. Briggs, David L. Page, and Lubomir S. Hnilica.
- \* 601 Antigens of Human Pancreatic Adenocarcinoma Cells Defined by Murine Monoclonal Antibodies. Richard S. Metzgar, Melissa T. Gaillard, Steven J. Levine, Francis L. Tuck, Edward H. Bossen, and Michael J. Borowitz.
- 609 Correlation between the Loss of the Transformed Phenotype and an Increase in Superoxide Dismutase Activity in a Revertant Subclone of Sarcoma Virus-infected Mammalian Cells. J. A. Fernandez-Pol, P. D. Hamilton, and D. J. Kios.
- 618 Block in the Expression of Differentiation Markers of Rat Thyroid Epithelial Cells by Transformation with Kirsten Murine Sarcoma Virus. Alfredo Fusco, Antonio Pinto, Donatella Tramontano, Gianfranco Tajana, Giancarlo Vecchio, and Nobuo Tsuchida.
- 627 Comparative Physiological Disposition of N-(Phosphonacetyl)-L-aspartate in Several Animal Species after Intravenous and Oral Administration. Marjory Chadwick, Denise M. Silvera, James A. MacGregor, Alan R. Branfman, Robert H. Liss, and David W. Yesair.
- \* 633 Purification and Partial Characterization of a 17 $\beta$ -Estradiol-binding Macromolecule in the Human Pancreas. Ake Pousette, Kjell Carlstrom, Holger Skoldfors, Nils Wilking, and Nils Olof Theve.
- 638 Protection of Mice against Lethal Doses of 1- $\beta$ -D-Arabinofuranosylcytosine by Pluripotent Stem Cell Inhibitors. Martine Guigon, Jean-Yves Mary, Jocelyne Enout, and Emilia Frindel.
- \* 642 Metabolism and Binding of Benzo(a)pyrene and 2-Acetylaminofluorene by Short-Term Organ Cultures of Human and Rat Bladder. Brian P. Moore, R. Marian Hicks, Margaret A. Knowles, and Susan Redgrave.
- \* 649 Altered Sensitivity to 1- $\beta$ -D-Arabinofuranosylcytosine 5'-Triphosphate of DNA Polymerase  $\alpha$  from Leukemic Blasts of Acute Lymphoblastic Leukemia. Masao Tanaka and Shonen Yoshida.
- \* 654 Detection of Human Osteosarcoma-associated Antigen(s) by Monoclonal Antibodies. Susumu Hosoi, Takashi Nakamura, Shoichiro Higashi, Takao Yamamoto, Sakuji Toyama, Keisuke Shinomiya, and Haruki Mikawa.
- 660 Quantitative Determination of Disseminated Tumor Cells by [ $^3$ H]Thymidine Incorporation *In Vitro* and by Agar Colony Formation. Volker Schirmacher and Catherine A. Waller.
- \* 667 Effect of Estradiol on the Ultrastructure of MCF $_1$  Human Breast Cancer Cells in Culture. Patricia Vic, Françoise Vignon, Danielle Derocq, and Henri Rochefort.

## CLINICAL INVESTIGATIONS

- 674 Sanctuary Therapy: A Randomized Trial of 724 Children with Previously Untreated Acute Lymphoblastic Leukemia. Mark E. Nesbit, Harland Sather, Leslie L. Robison, Milton Donaldson, Philip Littman, Jorge A. Ortega, and G. Denman Hammond, for Childrens Cancer Study Group.
- 681 Synthesis of a Viral Protein with Molecular Weight of 30,000 (p30) by Leukemic Cells and Antibodies Cross-Reacting with Simian Sarcoma Virus-p30 in Serum of a Chronic Myeloid Leukemia Patient. Jos P. A. Derks, Lilian Hofmans, Hans W. Bruning, and Jon J. v. Rood.
- 687 Announcements
- 688 Recent Deaths
- 689 Books Received
- 693 Author Index

## February, Number 2, Supplement

## PROGRAM

List of Participants	697s
<b>Pediatric Cancer and Nutrition Workshop: Introductory Comments.</b>	
Richard S. Ungerleider, William D. DeWys, and Diane J. Fink	698s
<b>Nutritional Assessment of the Child with Cancer.</b>	
Charlotte G. Neumann, Derrick B. Jelliffe, Alfred J. Zerfas, and E. F. Patrice Jelliffe	699s
Discussion	711s
<b>Effect of Nutritional Supportive Therapy on Children with Advanced Cancer.</b>	
J. van Eys, A. Cangir, P. Carter, and D. Coody	713s
<b>Physiological and Psychological Mechanisms of Cancer Anorexia.</b>	
Ilene L. Bernstein	715s
Discussion	719s
<b>Pathophysiology of Cancer Cachexia: Current Understanding and Areas for Future Research.</b>	
William D. DeWys	721s
Discussion	725s
<b>Hyperalimentation in the Undernourished Cancer Patient.</b>	
Daniel W. Nixon	727s
Discussion (continued)	727s
<b>Effects of Therapy on Nutritional Status of the Pediatric Cancer Patient.</b>	
Sarah S. Donaldson	729s
Discussion	735s
<b>Effects of Undernutrition on Host Cell and Organ Function.</b>	
Robert A. Good, Anne West, Noorbibi K. Day, Zhu-Wei Dong, and Gabriel Fernandes	737s
Discussion	743s
<b>Effect of Nutritional Status on Response to Therapy.</b>	
Jan van Eys	747s
Discussion	753s
<b>Effect of Nutritional Status on Response to Therapy.</b>	
Sarah S. Donaldson	754s
Discussion (continued)	755s
<b>Tumoricidal Potential of Nutritional Manipulations.</b>	
George Ev. Demetrapoulos and Murray F. Brennan	756s
Discussion	765s
<b>Supportive Nutritional Intervention in Pediatric Cancer.</b>	
Karyl A. Rickard, Robert L. Baehner, Thomas D. Coates, Robert M. Weetman, Arthur J. Provisor, and Jay L. Grosfeld	766s
Discussion	772s
<b>Controlled Clinical Trials of Nutritional Intervention as an Adjunct to Chemotherapy, with a Comment on Nutrition and Drug Resistance.</b>	
Arthur S. Levine, Murray F. Brennan, Avner Ramu, Richard I. Fisher, Philip A. Pizzo, and Daniel L. Glaubiger	774s
Discussion	778s

## March, Number 3

- 783 Editorial. P. N. Magee.
- BASIC SCIENCES**
- 784 Retardation and Promotion of Growth of Spontaneously Appearing Tumors Using Immune Lymphocytes Previously Exposed to Embryonic Antigens. Reginald M. Gorczynski and Susannah MacRae.
- 791 Inhibition of Mitosis and Anticancer Activity against Experimental Neoplasms by Ethyl 5-Amino-1,2-dihydro-3-[(N-methylanilino)methyl]pyrido[3,4-b]pyrazine-7-ylcarbamate (NSC 181928). Glynn P. Wheeler, Bonnie J. Bowdon, Jacqueline A. Werline, Doris J. Adamson, and Carroll G. Temple, Jr.
- \*799 Interactions of Rhodamine 123 with Living Cells Studied by Flow Cytometry. Z. Darzynkiewicz, F. Tragano, L. Staiano-Coico, J. Kapuscinski, and M. R. Melamed.
- 807 Time- and Concentration-dependent Inhibition of the Clonogenic Growth of N-[4-(5-Nitro-2-furyl)-2-thiazolyl]formamide-induced Murine Bladder Tumor Cell Lines by *cis*-Diamminedichloroplatinum(II). Harvey B. Niell, Charles A. Wood, Donald D. Mickey, and Mark S. Soloway.
- \*812 Combined Modality Treatment Using Radiation and/or Chemotherapy in an Athymic Nude Mouse-Human Medulloblastoma and Glioblastoma Xenograft Model. Donald E. Slagel, Jose Feola, David P. Houchens, and Artemio A. Ovejera.
- 817 Mutagenicity of 5-Azacytidine and Related Nucleosides in C3H/10T $\frac{1}{2}$  Clone 8 and V79 Cells. Joseph R. Landolph and Peter A. Jones.
- 824 Altered Amino Acid Kinetics in Rats with Progressive Tumor Growth. Isao Kawamura, Lyle L. Moldawer, Ronald A. Keenan, Gerald Batist, Albert Bothe, Jr., Bruce R. Bistrian, and George L. Blackburn.
- 830 Conversion of 4-Hydroperoxycyclophosphamide and 4-Hydroxycyclophosphamide to Phosphoramidate Mustard and Acrolein Mediated by Bifunctional Catalysts. Joseph E. Low, Richard F. Borch, and N. E. Sladek.
- 838 Effect of Scheduling of Combinations of 5-(3,3-Dimethyl-1-triazeno)imidazole-4-carboxamide and 1-(2-Chloroethyl)-3-(4-methylcyclohexyl)-1-nitrosourea on the Harding-Passey and the Cloudman S91 Mouse Melanomas. Helene Z. Hill and George J. Hill, II.
- \*843 Identification and Purification of a Human Lung Tumor-associated Antigen from a Primary Lung Tumor. Gerald L. Princlar, K. Robert McIntire, and James A. Braatz.
- \*849 Characterization of a Human Lung Tumor-associated Antigen and Development of a Radioimmunoassay. James A. Braatz, Thomas R. Scharle, Gerald L. Princlar, and K. Robert McIntire.
- \*856 1,25-Dihydroxyvitamin D $_3$  Receptors in Human Epithelial Cancer Cell Lines. Kay Colston, M. Joseph Colston, A. Howard Fieldsteel, and David Feldman.
- \*860 Inactivation of Ultraviolet Repair in Normal and Xeroderma Pigmentosum Cells by Methyl Methanesulfonate. J. E. Cleaver.
- 864 Effects on Mouse Blastocysts of *In Vitro* Exposure to Methylinitrosourea and 3-Methylcholanthrene. Philip M. Iannaccone, Tzee Y. Tsao, and Lucy Stols.
- 869 Potentiation of the Direct Anticellular Activity of Mouse Interferons: Mutual Synergism and Interferon Concentration Dependence. W. Robert Fleischmann, Jr.

- 876 Effects of Delays in the Cell Cycle on the Induction of Preneoplastic and Neoplastic Lesions in Rat Liver by 1,2-Dimethylhydrazine. Thomas S. Ying, Katsuhiko Enomoto, D. S. R. Sarma, and Emmanuel Farber.
- \* 881 "Hidden" Cytotoxic Antibodies That React with Allogeneic Cultured Fetal and Tumor Cells Contained in Soluble Immune Complexes from Normal Human Sera. A. C. Morgan, R. D. Rossen, K. J. McCormick, J. S. Stehlin, Jr., and B. C. Giovanella.
- \* 888 Expression of Multimolecular Forms of Pyruvate Kinase in Normal, Benign, and Malignant Human Breast Tissue. Kenneth H. Ibsen, Robert A. Orlando, Kirk N. Garratt, Ana M. Hernandez, Stephanie Giorlando, and Gloria Nungaray.
- \* 893 Increased Induction of Sister Chromatid Exchange by Diethylstilbestrol in Lymphocytes from Pregnant and Premenopausal Women. Anna Hill and Sheldon Wolff.
- \* 897 Comparative Studies of DNA Cross-Linking and Cytotoxicity in Burkitt's Lymphoma Cell Lines Treated with *cis*-Diamminedichloroplatinum(II) and *L*-Phenylalanine Mustard. Jonathan M. Ducore, Leonard C. Erickson, Leonard A. Zwelling, Guy Laurent, and Kurt W. Kohn.
- 903 Effect of Retinyl Acetate on the Occurrence of Ovarian Hormone-responsive and -nonresponsive Mammary Cancers in the Rat. Henry J. Thompson, L. David Meeker, Anthony R. Tagliaferro, and Peter J. Becci.
- \* 906 Site-selective Growth of a Hormone-responsive Human Breast Carcinoma in Athymic Mice. Alice C. White, Jeffrey A. Levy, and Charles M. McGrath.
- \* 913 Lysis of Fresh Human Solid Tumors by Autologous Lymphocytes Activated *In Vitro* with Lectin. Amitabha Mazumder, Elizabeth A. Grimm, Hua Z. Zhang, and Steven A. Rosenberg.
- 919 Oxidative Metabolism of Diethylstilbestrol by Prostaglandin Synthetase. Gisela H. Degen, Thomas E. Eling, and John A. McLachlan.
- 924 Biochemical Correlates of Responsiveness and Collateral Sensitivity of Some Methotrexate-resistant Murine Tumors to the Lipophilic Antifolate, Mefoprine. F. M. Sirotnak, D. M. Moccio, L. J. Goutas, L. E. Kelleher, and J. A. Montgomery.
- 929 Control of *In Vivo* (Cellular) Phleomycin Sensitivity by Nuclear Genotype, Growth Phase, and Metal Ions. Carol W. Moore.
- \* 934 Comparison of Benzo(a)pyrene Metabolism in Bronchus, Esophagus, Colon, and Duodenum from the Same Individual. Herman Autrup, Roland C. Grafstrom, Michele Brugh, John F. Lechner, Aage Haugen, Benjamin F. Trump, and Curtis C. Harris.
- 939 Spectrum of Tumorigenic Phenotypes among Adenovirus 2-, Adenovirus 12-, and Simian Virus 40-transformed Syrian Hamster Cells Defined by Host Cellular Immune-Tumor Cell Interactions. Andrew M. Lewis, Jr. and James L. Cook.
- 945 Circadian Stage Dependence of *cis*-Diamminedichloroplatinum Lethal Toxicity in Rats. William J. M. Hrushesky, Francis A. Levi, Franz Halberg, and B. J. Kennedy.
- 950 Reduction of *cis*-Diamminedichloroplatinum Nephrotoxicity in Rats by Optimal Circadian Drug Timing. Francis A. Levi, William J. M. Hrushesky, Charles H. Blomquist, David J. Lakatos, Erhard Haus, Franz Halberg, and B. J. Kennedy.
- 956 Isolation of Fluoropyrimidine-resistant Murine Leukemic Cell Lines by One-Step Mutation and Selection. Mary A. Mulkins and Charles Heidelberger.
- 965 Biochemical Characterization of Fluoropyrimidine-resistant Murine Leukemic Cell Lines. Mary A. Mulkins and Charles Heidelberger.
- 974 Role of Antitumor Immunity in Cyclophosphamide-induced Rejection of Subcutaneous Nonpalpable MOPC-315 Tumors. Margalit B. Mokyr, James C. D. Hengst, and Sheldon Dray.
- 980 Cathepsin B Activity in B16 Melanoma Cells: A Possible Marker for Metastatic Potential. Bonnie F. Sloane, Kenneth V. Honn, John G. Sadler, William A. Turner, Jeffrey J. Kimpson, and John D. Taylor.
- \* 987 Mechanism of Efflux of Melphalan from L5178Y Lymphoblasts *In Vitro*. Asher Begleiter, Judy Grover, and Gerald J. Goldenberg.
- \* 992 Heterogeneous Chemosensitivities of Subpopulations of Human Glioma Cells in Culture. Wai-Kwan A. Yung, Joan R. Shapiro, and William R. Shapiro.
- 999 CC-1065 (NSC 298223), a Novel Antitumor Agent That Interacts Strongly with Double-Stranded DNA. L. H. Li, D. H. Swenson, S. L. F. Schpok, S. L. Kuentzel, B. D. Dayton, and W. C. Krueger.
- \* 1005 Effect of Oxygen Concentration on the Growth and Drug Sensitivity of Human Melanoma Cells in Soft-Agar Clonogenic Assay. Vicram Gupta and Awtar Krishan.
- 1008 Quantitative Dose-Response Relations for the Cytotoxic Activity of Chloroethylnitrosoureas in *Cae* Culture. Robert J. Weinkam and Dennis F. Deen.
- 1015 Permissive Role of the Pituitary in the Induction and Growth of Estrogen-dependent Renal Tumors. Young C. Lin, Janet M. Loring, and Claude A. Villee.
- 1020 Advantages in the Use of *L*-Asparaginase-Albumin Polymer as an Antitumor Agent. Mark J. Poznansky, Maureen Shandling, Miriam A. Salkie, John Elliott, and Eda Lau.
- 1026 Secretion of a Thiol Proteinase from Mouse Mammary Carcinomas and Its Characterization. Anneliese D. Recklies, John S. Mort, and A. Robin Poole.
- \* 1033 Purification and Partial Characterization of Cellular Retinol-binding Protein from Human Liver. David E. Ong.
- 1038 Reduction of Ethylnitrosourea-induced Neoplastic Proliferation in Rat Trigeminal Nerves by Nerve Growth Factor. Stanley A. Vinorens and Adalbert Koestner.
- 1041 Differences in Anchorage-dependent Growth and Tumorigenicities between Transformed C3H/10T<sup>+</sup> Cells Whose Morphologies Are and Are Not Reverted to a Normal Phenotype by Ascorbic Acid. William F. Benedict, William L. Wheatley, and Peter A. Jones.
- 1046 Characterization of High- and Low-Metastatic Clones Derived from a Methylcholanthrene-induced Murine Fibrosarcoma. Nancy Wang, Samuel H. Yu, Irvin E. Luener, Robert P. Hebbel, John W. Eaton, and Charles F. McKhann.
- \* 1052 Differential Effects of Sodium Butyrate, Dimethyl Sulfoxide, and Retinoic Acid on Membrane-associated Antigen, Enzymes, and Glycoproteins of Human Rectal Adenocarcinoma Cells. D. Tsao, A. Montal, A. Bella, Jr., P. Luu, and Y. S. Kim.
- 1059 Effects of Hyperthermia on Dividing Chinese Hamster Ovary Cells and on Microtubules *In Vitro*. Ronald A. Coss, William C. Dewey, and James R. Bamburg.
- 1072 Inhibitory Effect of *L*-Homocysteine on Murine Osteosarcoma Cell Proliferation. Yoshihiro Kikuchi, Minoru Takagi, Richard T. Pamley, Vilthai K. Ghanta, and Raymond N. Hiramoto.
- 1078 Nuclear Catalyzed Antibiotic Free Radical Formation. Nicholas R. Bachur, Malcolm V. Gee, and Rosalind D. Friedman.
- 1082 Specificity of the Control of Tumor Formation by the Blastocyst. G. Barry Pierce, Cooley E. Pantazis, James E. Caldwell, and Robert S. Wells.
- 1088 Cloning and Screening of Sequences Expressed in a Mouse Colon Tumor. Leonard H. Augenlicht and Diane Kohn.
- \* 1094 Characterization of Bladder Papilloma by Two-Parameter DNA-RNA Flow Cytometry. Frederick A. Klein, Myron R. Melamed, Willet F. Whitmore, Jr., Harry W. Herr, Pramod C. Sogani, and Zbigniew Darzynkiewicz.
- 1098 New Antitumor Imidazole Derivative, 5-Carbamoyl-1H-imidazol-4-yl Piperonylate, as an Inhibitor of Purine Synthesis and Its Activation by Adenine Phosphoribosyltransferase. Masaru Fukui, Makoto Inaba, Shigeru Tsukagoshi, and Yoshio Sakurai.
- 1103 Collateral Sensitivity of 6-Mercaptopurine-resistant Sublines of P388 and L1210 Leukemia to the New Purine Antagonists, 5-Carbamoyl-1H-imidazol-4-yl Piperonylate and 4-Carbamoylimidazolium 5-Olate. Makoto Inaba, Masaru Fukui, Noboru Yoshida, Shigeru Tsukagoshi, and Yoshio Sakurai.
- 1107 Regulation of  $\gamma$ -Glutamyltranspeptidase in Rat Hepatocyte Monolayer Cultures. Anthony M. Edwards.
- \* 1116 Presence of 1,25-Dihydroxyvitamin D<sub>3</sub> Receptors in Established Cancer Cell Lines in Culture. R. J. Frampton, L. J. Suva, J. A. Eisman, D. M. Findlay, G. E. Moore, J. M. Moseley, and T. J. Martin.
- 1120 Metabolism and Activation of Aflatoxin B<sub>1</sub> by Reconstituted Cytochrome P-450 System of Rat Liver. Hiroko Yoshizawa, Reiko Uchmaru, Tetsuya Kamataki, Ryuichi Kato, and Yoshio Ueno.
- 1125 Survival of Tumor-bearing Mice Exposed to Heavy Water or Heavy Water plus Methotrexate. Jean A. Laisse, Heinz Burki, and Willi Berchtold.
- \* 1130 Inactivation of S-Adenosylhomocysteine Hydrolase by 9- $\beta$ -D-Arabinofuranosyladenine in Intact Cells. Svein Helland and Per Magne Ueland.
- \* 1137 Regulation of Insulin Binding to Human Mammary Carcinoma. Edward A. Benson and Ian M. Holdaway.
- \* 1142 Endo- and Ectocervical Human Uterine Epithelial Cells Distinguished by Fibronectin Production and Keratinization in Culture. K. Aitola, H. Halla, E. Vesteninen, and A. Vaheri.
- 1147 Pericellular Matrix and Cell Surface Glycoproteins of Virus-transformed Mouse Epithelial Cells. Jorma Keski-Oja, Carl G. Gahmberg, and Kari Aitola.
- 1154 Mammary Tumor Virus DNA as a Marker for Genotypic Variance within Hormone-responsive GR Mouse Mammary Tumors. Rob Michalides, Els Wagenaar, and Mels Sluysers.
- 1159 Meeting Report: Sixth Meeting of the European Association for Cancer Research. Karoly Lapis and George Weber.

## CLINICAL INVESTIGATIONS

- 1164 Fecal Mutagens in Two Japanese Populations with Different Colon Cancer Risks. H. F. Mower, D. Ichinotsubo, L. W. Wang, M. Mandel, G. Stemmermann, A. Nomura, L. Heilbrun, S. Kamiyama, and A. Shimada.
- 1170 Phase I Clinical Investigation of 9,10-Anthracenedi-carboxaldehyde Bis[4,5-dihydro-1H-imidazol-2-yl]hydrazones Dihydrochloride with Correlative *In Vitro* Human Tumor Clonogenic Assay. David S. Alberts, Cindy Mackel, Robert Pocelinko, and Sydney E. Salmon.
- 1176 Enzymology of Pyrimidine and Carbohydrate Metabolism in Human Colon Carcinomas. Joan E. Denton, May S. Lui, Takashi Aoki, Judith Sebolt, Eiji Takeda, John N. Eble, John L. Glover, and George Weber.
- 1184 Development of an Antibody to Actinomycin D and Its Application for the Detection of Serum Levels by Radioimmunoassay. Arthur R. Brothman, Thomas P. Davis, John J. Duffy, and Thomas J. Lindell.
- 1188 Letter to the Editor: Variability in Hematopoietic Derivative Preparations. Thomas J. Dougherty.
- 1189 Announcements
- 1191 Author Index

## April, Number 4

## BASIC SCIENCES

- 1193 Isolation and Identification of Kahweol Palmitate and Cafestol Palmitate as Active Constituents of Green Coffee Beans That Enhance Glutathione S-Transferase Activity in the Mouse. Luke K. T. Lam, Velta L. Sparrins, and Lee W. Wattenberg.

- 1199 Effect of Butylated Hydroxyanisole,  $\alpha$ -Angelic Lactone, and  $\beta$ -Naphthoflavone on Benzo(a)pyrene:DNA Adduct Formation *In Vivo* in the Forebrain, Lung, and Liver of Mice. Y. M. Ioannou, A. G. E. Wilson, and M. W. Anderson.

- 1205 Enhancement of Glutathione S-Transferase Activity of the Esophagus by Phenols, Lactones, and Benzyl isothiocyanate. Velta L. Sparrins, Ji Chuan, and Lee W. Wattenberg.



- \*1208 Natural and Antibody-dependent Cell-mediated Cytotoxicity to Cultured Target Cells Superinfected with Epstein-Barr Virus. Mitsuo Takasugi, M. Ray Mickey, and Paul H. Levine.
- \*1215 Production of Monoclonal Antibody  $\alpha$ Pro3 Recognizing a Human Prostatic Carcinoma Antigen. Joy L. Ware, David F. Paulson, Susanne F. Parks, and Karen S. Webb.
- 1223 Factors That Influence Initiation and Growth of 9L Rat Brain Gliosarcoma Multicellular Spheroids. Yoshinori Sano, Dennis F. Deen, and Takao Hoshino.
- 1227 Identification of Ascorbic Acid as the Heat-stable Factor from Brain Which Inactivates the Phorbol Ester Receptor. K. Barry Delicos and Peter M. Blumberg.
- 1233 Effects of Tumor-promoting Phorbol Diesters on Neoplastic Progression of Syrian Hamster Embryo Cells. Thomas G. O'Brien, Douglas Saladik, and Leila Diamond.
- 1239 Influence of a Bay-Region Methyl Group on Formation of 5-Methylchrysene Dihydrodiol Epoxide-DNA Adducts in Mouse Skin. Asieh A. Melikian, Edmond J. LaVoie, Stephen S. Hecht, and Dietrich Hoffmann.
- 1243 Identification of Mutagenic Metabolites Formed by C-Hydroxylation and Nitroreduction of 5-Nitroacenaphthene in Rat Liver. Karam El-Bayoumy and Stephen S. Hecht.
- \*1249 Abnormal Sensitivity of Skin Fibroblasts from Familial Polyposis Patients to DNA Alkylating Agents. Thomas R. Barknecht and John B. Little.
- 1255 Depletion of Lymphocyte Subpopulations in Primary and Secondary Lymphoid Organs of Mice by a Transplanted Granulocytosis-inducing Mammary Carcinoma. Minako Y. Lee and Cornelius Rosse.
- \*1261 Response of Human Hematopoietic Precursor Cells (CFUc) to Hyperthermia and Radiation. Richard H. Bromer, James B. Mitchell, and Nirmolito Soares.
- 1266 Interaction of Dietary Fat and the Thymus in the Induction of Mammary Tumors by 7,12-Dimethylbenz(a)anthracene. David A. Wagner, Paul H. Naylor, Untek Kim, Wendy Shea, Clement Ip, and Margot M. Ip.
- 1274 Cyclic Nucleotide Modulation of *in Vitro* Morphological Transformation of Syrian Hamster Cells. Stefan G. D. Mironescu, Sheldon M. Epstein, and Joseph A. DiPaolo.
- 1279 Enterohepatic Circulation of Methotrexate in Rats *in Vivo*. Stephen E. Steinberg, Caryl L. Campbell, Werner A. Bleyer, and Robert S. Hilsenrath.
- 1283 Biochemical Localization of Aryl Hydrocarbon Hydroxylase in the Intestinal Epithelium of the Rat. C. W. Porter, D. Dworaczky, and H. L. Gurtoo.
- 1286 Identification of 7-Carboxymethylguanine in DNA from Pancreatic Acinar Cells Exposed to Azaserine. Joanne Zurlo, Thomas J. Curphey, Raymond Hiley, and Daniel S. Longnecker.
- 1289 Initial Rate Kinetics of the Transport of Adenosine and 4-Amino-7-( $\beta$ -D-ribofuranosyl)pyrrolo[2,3-d]pyrimidine (Tubercidin) in Cultured Cells. Eric R. Harley, Alan R. P. Paterson, and Carol E. Cass.
- 1296 Decreased Cytotoxicity of *cis*-Diamminedichloroplatinum(II) by  $\alpha$ -Difluoromethylornithine Depletion of Polyamines in 9L Rat Brain Tumor Cells *in Vitro*. Stina M. Oredsson, Dennis F. Deen, and Laurence J. Marlon.
- 1300 DNA Ligase and DNase Activities in Mouse Erythrocytic Cells during Dimethyl Sulfoxide-induced Differentiation. Barbara M. Scher, William Scher, Andrew Robinson, and Samuel Waxman.
- \*1307 Metabolism of *N*-Nitrosamines by Cultured Human and Rat Esophagus. Herman Autrup and Gary D. Stoner.
- \*1312 Stimulation of Natural Killer Cell Activity and Inhibition of Proliferation of Various Leukemic Cells by Purified Human Leukocyte Interferon Subtypes. S. H. Lee, S. Kelley, H. Chiu, and N. Stebbing.
- 1317 Formation and Removal of (Guan-8-yl)-DNA-2-acetylaminofluorene Adducts in Liver and Kidney of Male Rats Given Dietary 2-Acetylaminofluorene. Miriam C. Poirier, B. Ann True, and Brian A. Lashles.
- \*1322 Failure of Progestins to Induce Estradiol Dehydrogenase Activity in Endometrial Carcinoma, *in Vitro*. P. G. Satyaswaroop and R. Mortel.
- \*1326 Purine and Pyrimidine Ribonucleoside Monophosphate Patterns of Peripheral Blood and Bone Marrow Cells in Human Acute Leukemias. Joëlle Scavennec, Dominique Maraninchi, Jean-Albert Gastaut, Yves Carcassonne, and Helene L. Cailla.
- \*1331 Selective Toxicity of 6-Hydroxydopamine and Ascorbate for Human Neuroblastoma *in Vitro*: A Model for Clearing Marrow Prior to Autologous Transplant. C. Patrick Reynolds, Debra A. Reynolds, Eugene P. Frenkel, and R. Graham Smith.
- 1337 Inhibition of Experimental Tumor Metastasis by Selective Activation of Natural Killer Cells. Nabil Hanna.
- \*1343 Repair and Replication of DNA in Hereditary (Bilateral) Retinoblastoma Cells after X-Irradiation. J. E. Cleaver, D. Char, W. C. Charles, and N. Rand.
- 1348 Persistence of DNA Adducts in Rat Liver and Kidney after Multiple Doses of the Carcinogen *N*-Hydroxy-2-acetylaminofluorene. Frederick A. Beland, Kenneth L. Dooley, and C. D. Jackson.
- 1355 Hormonal Induction of Casein Gene Expression Limited to a Small Subpopulation of 7,12-Dimethylbenz(a)anthracene-induced Mammary Tumor Cells. Scott C. Supowit and Jeffrey M. Rosen.
- \*1361 Relationships between Neuroendocrine Differentiation and Sensitivity to  $\gamma$ -Radiation in Culture Line OH-1 of Human Small Cell Lung Carcinoma. Gregory Goodwin and Stephen B. Baylin.
- \*1368 Establishment and Characterization of an Epstein-Barr Virus-negative Lymphoma B-Cell Line from a Patient with a Diffuse Large Cell Lymphoma. Robert O. Dillman, Harold H. Handley, and Ivor Royston.
- \*1374 Phenotypic Diversity of  $\gamma$ -Glutamyltranspeptidase Activity and Protein Secretion in Rat and Human Hepatoma Cell Lines. William L. Richards, Yutaka Tsukada, and Van R. Potter.
- \*1384 Tubulin as a Major Cell Surface Protein in Human Lymphoid Cells of Leukemic Origin. Robert W. Rubin, Marjane Quillen, James J. Corcoran, Ram Ganapathi, and Awtar Krishan.
- 1390 Inhibition of the R3327MAT-Lu Prostatic Tumor by Diethylstilbestrol and 1,2-Bis(3,5-dioxipiperazine-1-yl)propane. David W. Lazan, Warren D. W. Heston, Dov Kadmon, and William R. Fair.
- 1395 Alteration of Protein Synthesis and Induction of Specific Protein Phosphorylation by Hyperthermia. Ira Rubin, Godfrey Getz, and Hewson Swift.
- 1399 Comparison of the Sequences at Specific Sites on DNA Cleaved by the Antitumor Antibiotics Talisomycin and Bleomycin. Christopher K. Mirabelli, Wanda G. Beattie, Cheng-Hsiung Huang, Archie W. Prestayko, and Stanley T. Crooke.
- 1405 Proliferative and Morphological Changes in the Pulmonary Epithelium of the Syrian Golden Hamster during Carcinogenesis Initiated by  $^{125}\text{I}$ - $\alpha$ -Radiation. Susan G. Shams, Lawrence A. Thibodeau, Ann R. Kennedy, and John B. Little.
- 1412 Analysis of the Fate of Systemically Administered Liposomes and Implications for Their Use in Drug Delivery. George Poste, Corazon Bucana, Avraham Raz, Peter Bugelski, Richard Kirsh, and Isaiah J. Fidler.
- 1423 Effect of 2,3,7,8-Tetrachlorodibenzo-p-dioxin and Phenobarbital on the Occurrence and Distribution of Four Cytochrome P-450 Isozymes in Rabbit Kidney, Lung, and Liver. Jane H. Dees, Beth Sue Siler Masters, Ursula Muller-Eberhard, and Eric F. Johnson.
- \*1433 Metabolic and Ultrastructural Aspects of the *in Vitro* Lysis of Chronic Lymphocytic Leukemia Cells by Glucocorticoids. Uri Galili, Rachel Leizerowitz, Jan Moreb, Haim Gamliel, Dorit Gurfel, and Aaron Pollack.
- 1441 Distribution of Novikoff Ascites Hepatoma Antigens p39 and p49 in Various Tumorigenic Cell Lines. Warren N. Schmidt and Lubomir S. Hnilica.
- 1446 Mutagenic and Alkylating Activities of 3-Methyl-1-phenyltriazenes and Their Possible Role as Carcinogenic Metabolites of the Parent Dimethyl Compounds. Christian Malaveille, Gisele Brun, George Kolar, and Helmut Bartsch.
- \*1454 Properties of Human Melanoma Cells Resistant to 5-(3',3'-Dimethyl-1-triazeno)imidazole-4-carboxamide and Other Methylating Agents. Peter G. Parsons, Susan G. F. Kelly, Leanne E. Morrison, and Ian P. Hayward.
- 1462 4'-O-Tetrahydropyranyldiamycin as a Potential New Antitumor Agent. Takashi Tsuruo, Harumi Iida, Shigeru Tsukagoshi, and Yoshio Sakurai.
- 1468 Prevention of Interferon-induced Augmentation of Cellular Antitumor Effector Mechanisms by Phorbol Esters. R. Keller, M. Aquet, M. Tovey, and L. Stitz.
- \*1473 Failure of RNA Synthesis to Recover after Ultraviolet Irradiation: An Early Defect in Cells from Individuals with Cockayne's Syndrome and Xeroderma Pigmentosum. Lynne V. Mayne and Alan R. Lehman.
- 1479 Metabolism of Polycyclic Aromatic Hydrocarbons and Covalent Binding of Metabolites to Protein in Rat Adrenal Glands. Johan Montelius, Dimitrios Papadopoulos, Margot Bengtsson, and Jan Rydström.
- 1487 Enzyme Immunoassay for the Quantification of Mitomycin C Using  $\beta$ -Galactosidase as a Label. Kuno Fujwara, Hitoshi Saikusa, Motomi Yasuno, and Tsunehiro Kitagawa.
- 1492 Inhibition by  $17\beta$ -Estradiol of the Growth of the Rat Pituitary Transplantable Tumor MIF. Yves Morel, Veronique Albaladejo, Jérôme Bouvier, and Jean Andre.
- 1498 pH Distributions in Transplanted Neural Tumors and Normal Tissues of BDIX Rats as Measured with pH Microelectrodes. Eckhard Jähde, Manfred F. Rajewsky, and Horst Baumgartl.
- 1505 Tumor-selective Modification of Cellular Microenvironment *in Vivo*: Effect of Glucose Infusion on the pH in Normal and Malignant Rat Tissues. Eckhard Jähde and Manfred F. Rajewsky.
- \*1513 Serotonin and Histamine Production by Human Carcinoid Cells in Culture. Marie-Claude Debons-Guillem, Jean-Marie Launay, Alberto Roseto, and Jorge Peries.
- 1517 Changes in Regional Keratin Polypeptide Patterns during Phorbol Ester-mediated Reversible and Permanently Sustained Hyperplasia of Mouse Epidermis. Jürgen Schweizer and Hermelita Winter.
- \*1530 Induction of Maturation in Cultured Human Monocytic Leukemia Cells by a Phorbol Diester. Shigeru Tsuchiya, Yasuko Kobayashi, Yoichi Goto, Hidesada Okumura, Shingi Nakae, Tasuke Konno, and Keiya Tada.
- 1537 Elevated Level of Enzymatic DNA Methylation in Cells Treated with 1- $\beta$ -D-Arabinofuranosylcytosine. Thomas L. J. Boehm and Dusan Drahosky.
- \*1541 Characterization of a Newly Established Human Gastric Cancer Cell Line HGT-1 Bearing Histamine  $H_2$  Receptors. Christian L. Labosse, Chantal Augeron, Marie-Hélène Couturier-Turpin, Christian Gespach, Anne-Marie Cheret, and François Potel.
- \*1549 Production of Human  $\alpha$ -Antichymotrypsin-like Protein by a Human Malignant Melanoma Transplanted into Nude Mice. Yukio Kondo and Nakaaki Ohswa.
- \*1555 Inhibition of PM-2 DNA Degradation by a Human Serum Protein. Louis Galvan, John E. Evans, Cheng-Hsiung Huang, Archie W. Prestayko, Benjamin Wu, and Stanley T. Crooke.

## CLINICAL INVESTIGATIONS

- 1562 Detection of a Serum DNA-binding Protein Associated with Cancer. Louis Galvan, John E. Evans, Robert L. Comis, Arlan Gottlieb, Ferenc Gyorko, Montague Lane, Archie W. Prestayko, and Stanley T. Crooke.
- 1567 Pteridine-binding  $\alpha$ -Acid Glycoprotein from Blood of Patients with Neoplastic Diseases. Irmgard Ziegler, Konrad Maier, and Michael Fink.
- 1574 Blood Levels of a Pteridine-binding  $\alpha$ -Acid Glycoprotein in Cancer Patients. Michael Fink, Irmgard Ziegler, Konrad Maier, and Wolfgang Wilmanns.
- 1579 Phase II Study of 4-(9-Acridinylamino)methanesulfon-*m*-aniside (NSC 249992) in Children with Acute Leukemia and Lymphoma. Charlotte T. C. Tan, Counce Hancock, Peter G. Steinherz, Laurel J. Steinherz, Michael Sorell, Ka Wah Chan, Anna Mondora, and Denis R. Miller.
- 1582 Phase I Trial and Pharmacokinetics of Aziridinbenzoquinone (NSC 182986) in Humans. Richard L. Schitsky, James A. Kelley, Daniel C. Ithé, Dianne M. Howser, Rosemarie S. Cordes, and Robert C. Young.
- 1587 Pilot Study of High-Dose 1- $\beta$ -D-Arabinofuranosylcytosine for Acute Leukemia and Refractory Lymphoma: Clinical Response and Pharmacology. Amy P. Early, Harvey E. Presler, Harry Slocum, and Yosel M. Rustum.
- 1595 Polymorphonuclear Functions in Hodgkin's Disease Patients at Diagnosis, in Remission, and in Relapse. Joel Corberand, Said Benckroun, Françoise Nguyen, Patrick Laharrague, and Jacques Prie.

- 1600 Amyloid A in Systemic Amyloidosis Associated with Cancer. Gunnar Husby, Gudmund Marhaug, and Knut Sletten.
- 1604 Differential Effect of High-Dose Methotrexate on Erythropoiesis and Granulocytopenia in Humans. Peter Dormer, Hansjörg Sauer, Andreas Schalhorn, and Wolfgang Wilmanns.

- 1608 Meeting Report: Sapporo Cancer Seminar: Escape of Tumor Cells from Immune Controls. R. W. Baldwin and G. Klein.
- 1610 Letter to the Editor: A Methodologically Improved Definition of Chemosensitivity Indices. U. Abel and M. Kaufmann.

- 1611 Special Announcement
- 1612 Announcements
- 1614 Recent Deaths
- 1615 Author Index

# May, Number 5

## BASIC SCIENCES

- 1617 Methotrexate Levels in the Interstitial Space and Seminiferous Tubule of Rat Testis. Riccardo Riccardi, Robert A. Vigersky, Susan Barnes, W. Archie Bleyer, and David G. Poplack.
- 1620 Selective Activation of Some Dihydrodiols of Several Polycyclic Aromatic Hydrocarbons to Mutagenic Products by Prostaglandin Synthetase. Janet Guthrie, Iain G. C. Robertson, Errol Zeiger, Jeffrey A. Boyd, and Thomas E. Eling.
- 1624 Antitumor Activity of the 3'-Chloroethyl-nitrosourea Analog of Thymidine, and the Prevention by Coadministered Thymidine of Lethality but Not of Anticancer Activity. Tai-Shun Lin, Paul H. Fischer, John C. Marsh, and William H. Prusoff.
- 1630 Effect of Macrophages on Phorbol Ester-stimulated Comitogenesis in Bovine Lymphocytes. Andrea M. Mastro and Karen G. Pepin.
- 1636 Deceleratory Growth by a Rat Glial Tumor Line in Culture. Philip Skehan and Susan J. Friedman.
- 1641 Methotrexate Cytotoxicity for LS1787/Asn<sup>+</sup> Lymphoblasts: Relationship of Dose and Duration of Exposure to Tumor Cell Viability. D. A. Keefe, Robert L. Capizzi, and Seth A. Rudnick.
- 1646 Cell-mediated Mutagenicity in Chinese Hamster V79 Cells of Dibenzopyrenes and Their Bay-Region Fluorene-substituted Derivatives. Bruce S. Hass, Catherine K. McKeown, Dennis J. Sardiella, Elisha Boger, Pallab K. Ghoshal, and Eliezer Huberman.
- \*1650 Monoclonal Antibodies Recognizing Tumor-associated Antigen of Human Ovarian Mucinous Cystadenocarcinomas. Malaya Bhattacharya, Sunil K. Chatterjee, Joseph J. Barlow, and Hiroshi Fuji.
- \*1655 Establishment of Methotrexate-resistant Human Acute Lymphoblastic Leukemia Cells in Culture and Effects of Folate Antagonists. Taisuke Ohnishi, Takao Ohnuma, Isao Takahashi, Kevin Scanlon, Barton A. Kamen, and James F. Holland.
- \*1661 Implementation of Micromethods to Resolve Problems of Human Breast Tumor Heterogeneity in Analysis of 3',5'-Cyclic Phosphodiesterase. Elizabeth H. Larner and Charles L. Rutherford.
- 1669 Immune Selection of Tumor Cell Variants in Chickens Bearing Tumors Induced by Avian Sarcoma Virus. Mark A. Weinberg, Evelyn Israel, and Margaret Yu.
- 1676 Identification of Phorbol Ester Receptors in T-Cell Growth Factor-producing and -nonproducing EL4 Mouse Thymoma Cells. Julianne J. Sando, Mary L. Hilkner, Mark H. Piacentini, and Terri M. Laufer.
- 1681 Benzo(a)pyrene Phenol Production by Perfused Rat Liver and Its Inhibition by Ethanol. Lester A. Ronke, Paul McManus, Frederick C. Kauffman, and Ronald G. Thurman.
- 1686 Receptor-dependent Antiproliferative Effects of Corticosteroids in Radiation-induced Fibrosarcomas and Implications for Sequential Therapy. Paul G. Braunschweiger, Han L. Ting, and Lewis M. Schiffer.
- \*1692 Effect of L-Phenylalanine Mustard, Adriamycin, Actinomycin D, and 4'-(9-Acridinylamino)methanesulfonamide on Naturally Occurring Human Spontaneous Monocyte-mediated Cytotoxicity. Eugene S. Kleinerman, Leonard A. Zwelling, Ronald Schwartz, and Andrew V. Muchmore.
- 1696 Pharmacology and Toxicity of a Potent "Non-classical" 2,4-Diamino Quinoxaline Folate Antagonist, Trimetrexate, in Normal Dogs. Eleanor C. Weir, Arlene R. Cashmore, Robert N. Dreyer, Michael L. Graham, Nina Hsiao, Barbara A. Moroson, Wendy L. Sawicki, and Joseph R. Bertino.
- 1703 Components of Hematoporphyrin Derivatives and Their Tumor-localizing Capacity. David Kessel.
- 1707 Toxicity and Anticancer Activity of a New Triazine Antifolate (NSC 127755). Thomas H. Corbett, Wilbur R. Leopold, Donald J. Dykes, Billy J. Roberts, Daniel P. Griswold, Jr., and Frank M. Schabel, Jr.

- 1716 Correlation between Amounts of Cellular Membrane Components and Sensitivity to Hyperthermia in a Variety of Mammalian Cell Lines in Culture. Anne E. Cress, Patrick S. Culver, Thomas E. Moon, and Eugene W. Gerner.
- 1722 Effect of Microsomal Cytochrome P-450 Isozyme Induction on the Mutagenic Activation of 2-Aminoanthracene. Richard L. Norman, Ursula Muller-Eberhard, and Eric F. Johnson.
- \*1727 Hormonal Regulation of Net DNA Synthesis in MCF-7 Human Breast Cancer Cells in Tissue Culture. Susan C. Aitken and Marc E. Lippman.
- 1736 Influence of Tetrahydrouridine on the Pharmacokinetics of Intrathecally Administered 1- $\beta$ -D-Arabinofuranosylcytosine. Riccardo Riccardi, Bruce Chabner, Daniel L. Glaubiger, James Wood, and David G. Poplack.
- 1740 Effects of Partially Thiolated Polycytidylic Acid and Liposomes on *In Vitro* Colony-forming Cells of Leukemic Mice. Yau-Kwan Ho, Eric Mayhew, Harvey D. Pressler, and Thomas J. Bardos.
- 1744 Development of Thermotolerance during Fractionated Hyperthermia in a Solid Tumor *In Vivo*. Toshiharu Kamura, Ole S. Nielsen, Jens Overgaard, and Anders H. Andersen.
- \*1749 Biochemical Properties of the High-Molecular-Weight Glycopeptides Released from the Cell Surface of Human Teratocarcinoma Cells. Hisako Muramatsu, Takashi Muramatsu, and Philip Avner.
- 1753 Detection of Ductal Dysplasia in Mammary Outgrowths Derived from Carcinogen-treated Virgin Female BALB/c Mice. Stephen P. Ethier and Robert L. Ullrich.
- 1761 Effect of Magnesium Content on Density-dependent Regulation of the Onset of DNA Synthesis in Transformed 3T3 Cells. H. Rubin.
- \*1769 Effect of *cis*- and *trans*-Dichlorodiammineplatinum(II) on Human Tumor Cell Proliferation in Diffusion Chambers *In Vivo*. Kathleen R. Ambrose and Jon S. Lowrey.
- 1774 Inhibition of Methylazoxymethanol-induced Intestinal Tumors in the Rat by Pyrazole with Paradoxical Effects on Skin and Kidney. James Notman, Queng Hui Tan, and Morris S. Zedeck.
- 1781 Enhanced Effect of Gastrin on Rat Stomach Carcinogenesis Induced by N-Methyl-N'-nitro-N-nitrosoguanidine. Eiichi Tahara, Fumio Shimamoto, Kyohiko Taniyama, Hisao Ito, Yasutoshi Kosako, and Hiromichi Sumiyoshi.
- 1788 Characterization of Growth-inhibitory Activities Associated with an  $\alpha$ -Macroglobulin of Mice. Peter H. Koo.
- 1798 Monoclonal Antibodies That Inhibit Enzyme Activity of 3-Methylcholanthrene-induced Cytochrome P-450. Sang S. Park, Tadachiko Fujino, Donna West, F. Peter Guengerich, and Harry V. Gelboin.
- 1809 Correlation between the Rates of Aerobic Glycolysis and Glucose Transport, Unrelated to Neoplastic Transformation, in a Series of BALB 3T3-derived Cell Lines. Beverly Peterkofsky and Willie Prather.
- 1817 Doxorubicin-induced Chronic Cardiotoxicity and Its Protection by Liposomal Administration. Aquilur Rahman, Newton More, and Philip S. Schein.
- 1826 Transepithelial Invasion and Intramesenchymal Infiltration of the Chick Embryo Chorioallantois by Tumor Cell Lines. Peter B. Armstrong, James P. Quigley, and Eric Sidebottom.
- \*1838 Homogeneously Staining Regions in Direct Preparations from Human Neuroblastomas. Gloria Balaban and Fred Gilbert.
- 1843 Conversion of Malignant Murine Embryonal Carcinomas to Benign Teratomas by Chemical Induction of Differentiation *In Vivo*. Wendell C. Speers.
- 1850 Inhibition of Cellular Division of a Murine Macrophage Tumor by Macrophage-activating Agents. James E. Talmadge, Patricia A. Donovan, and Ian R. Hart.

- 1856 Evidence for Single-Cell Origin of 3-Methylcholanthrene-induced Fibrosarcomas in Mice with Cellular Mosaicism. Hiroshi Tanooka and Kazuhiko Tanaka.
- \*1859 Metabolism of Benzo(a)pyrene in Epidermal Keratinocytes and Dermal Fibroblasts of Humans and Mice with Reference to Variation among Species, Individuals, and Cell Types. Toshio Kuroki, Jiro Hosomi, Kimiyo Munakata, Takuya Onizuka, Masami Terachi, and Nobuo Nemoto.
- 1866 Induction of Cytotoxicity, Mutation, Cytogenetic Changes, and Neoplastic Transformation by Benzo(a)pyrene and Derivatives in C3H/10T $\frac{1}{2}$  Clone 8 Mouse Fibroblasts. Eugene B. Gehly, Joseph R. Landolph, Charles Heidelberger, Hatsumi Nagasawa, and John B. Little.
- 1876 Inhibition of Mitochondrial Protein Synthesis during Early Stages of Aflatoxin B<sub>1</sub>-induced Hepatocarcinogenesis. Narayan K. Bhat, John K. Emech, Banavadi G. Niranjan, and Narayan G. Avadhani.
- 1881 Dome Formation by a Retrovirus-induced Lung Adenocarcinoma Cell Line. Angie Rizzino, Matthew A. Gonda, and Ulf R. Rapp.
- 1888 Protective Effects of S-2-(3-Aminopropylamino)-ethylphosphorothioic Acid against Radiation Damage of Normal Tissues and a Fibrosarcoma in Mice. Luka Milas, Nancy Hunter, Betty O. Reid, and Howard D. Thames, Jr.
- 1898 Arrest and Retention of Circulating Cancer Cells in the Lungs of Animals with Defined Metastatic Status. Leonard Weiss and Pamela M. Ward.
- 1904 Variants of an Interspecies Hybridoma with Altered Tumorigenicity and Protective Ability against Mouse Myeloma Tumors. R. Baumal, E. Musclow, H. Farkas-Himsley, and A. Marks.
- 1909 Induction of Sister Chromatid Exchange by Polyoma Large Viral Tumor Antigen in Transformed Rat Fibroblasts. Eric H. Brown and Claudio Basilico.
- 1913 Heterogeneity of Binding Sites for Tamoxifen and Tamoxifen Derivatives in Estrogen Target and Non-Target Fetal Organs of Guinea Pig. Alberto Gulinio and Jorge Raul Pasqualini.
- 1922 Involvement of T-Lymphocytes in the Stimulatory Effects of EMT<sub>6</sub> Tumors on Medullary Pluripotent Stem Cells of BALB/c Mice. Marie-Pierre Fache, Françoise Lepault, and Emilia Frindel.
- \*1927 Monoclonal Antibody against a Membrane Antigen Characterizing Leukemic Human B-Lymphocytes. Hansjörg K. Forster, Fred G. Gudat, Marie-F. Girard, Renate Albrecht, Jörg Schmidt, Christian Ludwig, and Jean-P. Obrecht.
- \*1935 Partial Characterization and "Quantitation" of a Human Prostatic Estramustine-binding Protein. Per Björk, Björn Forsgren, Jan-Åke Gustafsson, Åke Pousette, and Bertil Hogberg.
- 1943 Effect of X-Rays and Cyclophosphamide on Solid Tumors and Naturally Occurring Metastases in Mice. Ann M. Chu and Jack F. Fowler.
- 1950 Uptake, Efflux, and Hydrolysis of Actinomycin A in Friend Leukemia Cells. Alain Fourcade, Jean-Jacques Farhi, Myriam Bennoun, and Haim Tapiero.
- \*1955 Copper- and Zinc-containing Superoxide Dismutase, Manganese-containing Superoxide Dismutase, Catalase, and Glutathione Peroxidase in Normal and Neoplastic Human Cell Lines and Normal Human Tissues. Stefan L. Marklund, N. Gunnar Westman, Erik Lundgren, and Goran Roos.
- 1962 Nondetection of O<sup>6</sup>-Methylguanine in Rat DNA following *In Vivo* Treatment with Large Doses of Cimetidine Alone or in Combination with Sodium Nitrite. Soterios A. Kyrtopoulos, Efsthathios Hadjiolucas, and Birgitta Vrotsou.
- \*1967 Estrone Receptor Formation during the Processing of Estradiol-Receptor Complex in MCF-7 Cells. E. R. Hansen and S. C. Brooks.

- 1975 Effects of Phorbol Esters on Basal Epidermal Cells Derived from Ear Skin of Adult Guinea Pigs. C. Delescluse, G. Furstenberger, F. Marks, and M. Prunieras.
- 1980 Tumor Promoter Stimulation of Phosphatidylcholine Turnover in HeLa Cells. Graeme R. Guy and Andrew W. Murray.
- 1986 Polysomal Polyadenylated RNA and Albumin Messenger RNA in Mastomys Liver and in a Chemically Induced Hepatocellular Carcinoma. Liselotte Krieg, Detlev Krause-Leipoldt, Klaus Wayss, and Manfred Volm.
- 1994 Loss of Melanogenic Properties in Tyrosinases Induced by Glycosylation Inhibitors within Malignant Melanoma Cells. Genji Imokawa and Yutaka Mishima.
- 2003 Vaginal Adenosis and Adenocarcinoma in Mice Exposed Prenatally or Neonatally to Diethylstilbestrol. Retha R. Newbold and John A. McLachlan.
- \*2012 Immunochemical Differences among Carcinoembryonic Antigen in Tumor Tissues and Related Antigens in Meconium and Adult Feces. Yuji Matsuoka, Masahide Kuroki, Yoshiko Koga, Hiroshi Kuriyama, Takesada Mori, and Goro Kosaki.
- \*2019 Biosynthesis of an Interstitial Type of Collagen by Cloned Human Gastric Carcinoma Cells. Koko Sakakibara, Toshimitsu Suzuki, Teichi Motoyama, Hidenobu Watanabe, and Yoshitaka Nagai.
- \*2028 Monoclonal Antibodies in Analysis of Oncoplastic Protein SP, *in Vivo* and *in Vitro*. Eva Engvall, Masato Miyashita, and Erkki Ruoslahti.
- 2034 Histological, Proliferative, and Biochemical Alterations in Dorsal Epidermis of the Syrian Golden Hamster Induced by 12-O-Tetradecanoylphorbol-13-acetate and the Calcium Ionophore A 23187. Friedhelm Hasper, Gerhard Müller, and Jürgen Schweizer.
- \*2040 Establishment and Characterization of SV40-transformed Human Breast Epithelial Cell Lines. Sidney E. Chang, Jacqueline Keen, E. Brigitte Lane, and Joyce Taylor-Papadimitriou.

## CLINICAL INVESTIGATIONS

- 2054 Diphtheria Toxin Treatment of Human Advanced Cancer. Silvio Buzzi.
- 2059 A Phase I Study of Intracarotid Artery Infusion of *cis*-Diamminedichloroplatinum(II) in Patients with Recurrent Malignant Intracerebral Tumors. David J. Stewart, Sidney Wallace, Lynn Feun, Milam Leavens, Sue Ellen Young, Stanley Handel, Giora Mavigit, and Robert S. Benjamin.
- 2063 Natural Killer Activity in Spleens and Lymph Nodes from Patients with Hodgkin's Disease. Luigi P. Rucco, Antonio Procopio, Stefania Uccini, Enrico Marcorelli, Carlo D. Baroni.
- 2069 Pharmacology of 13-*cis*-Retinoic Acid in Humans. Ian G. Kerr, Marc E. Lippman, Jean Jenkins, and Charles E. Myers.

## June, Number 6

## BASIC SCIENCES

- 2105 Relationship between Carcinogenicity and *in Vitro* Metabolism of Nitrosomethylamine, Nitrosomethyl-N-butylamine, and Nitrosomethyl-2-phenylethylamine Labeled with Deuterium in the Methyl and  $\alpha$ -Methylene Positions. J. G. Farrelly, M. L. Stewart, J. E. Saavedra, and W. Lijinsky.
- \*2110 Non-Glucocorticoid Receptor-mediated Effects of the Potent Glucocorticoid Deacetylcurvazol. Jeffrey M. Harmon, Thomas J. Schmidt, and E. Brad Thompson.
- 2115 Antagonism of Concanavalin A Capping in Phorbol Ester-activated Lymphocytes by Calmodulin Inhibitors and Certain Amino Acid Esters. Cheung H. Kwong and Gerald C. Mueller.
- \*2121 Degradation of Tumor-associated Antigens Shed by Human Melanoma Cells in Culture. Amal M. Bector and Jean-Claude Bystryn.
- 2126 1-Butanol Extraction and Subsequent Reconstitution of Membrane Components Which Mediate Metastatic Phenotype. Stephen J. LeGrue.
- \*2135 Characterization of the Lymphokine Responsible for Migration-inhibitory Activity against Tumor Cells. Marion C. Cohen.
- 2139 Resistance to L1210 Mouse Leukemia Cells in Moderately Protein-malnourished BALB/c Mice Treated *in Vivo* with Thymosin Fraction V. Thomas M. Petro and Ronald R. Watson.
- 2146 Effect of Neoplasms on the Content and Activity of Alkaline Phosphatase and  $\gamma$ -Glutamyl Transpeptidase in Uninvolved Host Tissues. Bogumila Koss and Olga Greengard.
- 2152 Synergistic Effect of Ricin in Combination with Daunorubicin, *cis*-Dichlorodiamminoplatinum(II), and Vincristine in Systemic L1210 Leukemia. Øystein Fodstad and Alexander Pihl.
- \*2159 Rapid Assay for Evaluating the Chemosensitivity of Human Tumors in Soft Agar Culture. Nobuhiko Tanigawa, David H. Kern, Yonori Hikosaka, and Donald L. Morton.
- 2165 Comparison of Sister Chromatid Exchange Induction and Known Carcinogenic Activities of Vinyl and Allyl Carbamates. Maria Cheng and Mary K. Conner.
- \*2168 Activity of Bis-Carbamoyloxymethyl Derivatives of Pyrroles and Pyrrolizines against Human Tumor Xenografts in Nude Mice. Wayne K. Anderson.
- 2171 Heat Protection by Glycerol *in Vitro*. Kurt J. Henle and Raymond L. Waters.
- 2177 Toxicity and Pharmacokinetics of a New Antifolate, 2,4-Diamino-5-adamantyl-6-methylpyrimidine, in Dogs. Sigmund F. Zakrzewski, Zlato Pavelic, William R. Greco, Gary Bullard, Patrick J. Creaven, and Enrico Miliich.
- 2184 Hormone Sensitivity of the R3327-G Rat Prostate Adenocarcinoma: Growth Rate, DNA Content, and Hormone Receptors. Alan Pollack, George L. Irvin, Norman L. Block, Richard M. Lipton, Betty J. Stover, and Alice J. Clafin.
- 2191 Schedule-dependent Synergy and Antagonism between High-Dose 1- $\beta$ -D-Arabinofuranosylcytosine and Asparaginase in the L5178Y Murine Leukemia. Simeon A. Schwartz, Barry Morgenstern, and Robert L. Capizzi.
- 2198 Generation of Tumor Cells with Reduced DNA Content as a Result of Macrophage Tumoricidal Activity. Kevin M. Connolly and Alan M. Kaplan.
- 2207 Glycosaminoglycan Synthesis by Subpopulations of Epithelial Cells from a Mammary Adenocarcinoma. John C. Angello, Keith G. Danielson, Lawrence W. Anderson, and Howard L. Hovick.
- 2211 Regulation of the Expression of Adoptive Tumor Rejection Immunity by Recipient Cyclophosphamide-sensitive Cells. Cinda M. Boyer, John W. Kreider, and Gerald L. Bartlett.
- \*2216 Cytotoxic Antibody Reactivity in Sera of Melanoma Patients against Allogeneic and Autologous Cultured Tumor Cells and Fibroblasts. John M. Brown, Patricia C. Shoffner, S. P. Tondreau, Edwin J. Matthews, William D. Terry, and Steven A. Rosenberg.
- 2223 Dose-related Effects of Psoralen and Ultraviolet Light on the Cell Cycle of Murine Melanoma Cells. Janos M. Varga, Gary Wiesenhahn, James C. Bartholomew, and John E. Hearst.
- \*2227 *In Vitro* Generation of Tumoricidal Properties in Human Alveolar Macrophages following Interaction with Endotoxin. Saburo Sone, Satoru Moriguchi, Eiji Shimizu, Fumitaka Ogushi, and Eiro Tsubura.
- \*2232 Autocatabolism of Surface Macromolecules Shed by Human Melanoma Cells. Jean-Claude Bystryn and Judith Perlestein.
- 2238 Biological Behavior of MM1 Hamster Melanoma. Lawrence R. Stanberry, Tapas K. Das Gupta, and Craig W. Beattie.
- 2242 Effect of Adrenal Manipulation on Glucocorticoid Receptors in MM1 Hamster Melanoma. Lawrence R. Stanberry, W. F. Lindsey, and Craig W. Beattie.
- \*2247 Cellular Hypersensitivity to Neocarcinostatin in Ataxia-Telangiectasia Skin Fibroblasts. Yosef Shiloh, Enat Tabor, and Yechiel Becker.
- 2250 Enzyme Catalysis of the Deacylation of  $N^6$ -Acyl Derivatives of 1- $\beta$ -D-Arabinofuranosylcytosine in the Mouse Liver Microsome. Takashi Tsuruo, Kazuyoshi Hon, Harumi Iida, Shigeru Tsukagoshi, and Yoshio Sakurai.
- 2255 Estrogen Receptors in Canine Mammary Tumors. E. G. MacEwen, A. K. Pathak, H. J. Harvey, and W. B. Panko.
- 2074 Response to Luteinizing Releasing Hormone, Thyrotrophic Releasing Hormone, and Human Chorionic Gonadotropin Administration in Healthy Men at Different Risks for Prostatic Cancer and in Prostatic Cancer Patients. P. Hill, E. L. Wynder, L. Garbaczewski, H. Ganes, and A. R. P. Walker.
- 2081 Optimal Scheduling of Methotrexate and 5-Fluorouracil in Human Breast Cancer. Chris Benz, Tina Tillis, Ellen Tattelman, and Ed Cadman.
- 2087 Pharmacokinetics of 13-*cis*-Retinoic Acid in Patients with Advanced Cancer. Gary E. Goodman, Janine G. Einspahr, David S. Alberts, Thomas P. Davis, Susan A. Leigh, H. S. George Chen, and Frank L. Meyskens.
- 2092 Modulation of 9- $\beta$ -D-Arabinofuranosyladenine 5'-Triphosphate and Deoxyadenosine Triphosphate in Leukemic Cells by 2'-Deoxycytidine during Therapy with Arabinofuranosyladenine. William Plunkett, Robert S. Benjamin, Michael J. Keating, and Emil J. Freireich.
- 2097 Letter to the Editor: Urinary Excretion of Monoacetyl Polyamines in Patients with Non-Hodgkin's Lymphoma. Mahmoud M. Abdel Monem, James L. Merdink, and Athanasios Theodorides.
- 2099 Meeting Report: Modified Nucleosides and Cancer. Ernest Borek.
- 2101 Announcements
- 2102 Errata
- 2103 Author Index
- 2260 Comparison of the Actions of 9- $\beta$ -D-Arabinofuranosyl-2-fluoroadenine and 9- $\beta$ -D-Arabinofuranosyladenine on Target Enzymes from Mouse Tumor Cells. E. Lucile White, Sue C. Shaddix, R. Wallace Brockman, and L. Lee Bennett, Jr.
- 2265 Role of Laminin in the Attachment and Metastasis of Murine Tumor Cells. V. P. Terranova, L. A. Liotta, R. G. Russo, and G. R. Martin.
- \*2270 Characterization of Transformed Cells and Tumors by Proton Nuclear Magnetic Resonance Spectroscopy. Carolyn E. Mountford, George Grossman, Gregory Reid, and Richard M. Fox.
- 2277 DNA Damage in Liver, Kidney, Bone Marrow, and Spleen of Rats and Mice Treated with Commercial and Purified Aniline as Determined by Alkaline Elution Assay and Sister Chromatid Exchange Induction. Silvio Parodi, Mauro Pala, Patrizia Russo, Annalisa Zunino, Cecilia Balbi, Adriana Altini, Federico Valerio, Maria Roberta Cimerlie, and Leonardo Santi.
- 2284 Reutilization of Amino-Acid Carbons in Relation to Albumin Turnover in Nongrowing Mice with Sarcoma. Ingar Karlberg, Lars Ekman, Staffan Edsstrom, Tore Schersten, and Kent Lundholm.
- 2289 Correlations between Cell Surface Protease Activities and Abnormalities of Occludens Junctions in Rat Bladder Carcinoma *in Vitro*. Bendicht U. Paul and Ronald S. Weinstein.
- 2298 Ultrastructural Abnormalities in Carcinogen-induced Hepatocellular Altered Foci Identified by Resistance to Iron Accumulation. Norio Hirota and Gary M. Williams.
- \*2310 Identification and Purification of a M, 75,000 Cell Surface Human Melanoma-associated Antigen. Joy Heaney-Kieras and Jean-Claude Bystryn.
- \*2317 Immunoreactive Prolactin in Epithelial Cells of Normal and Cancerous Human Breast and Prostate Detected by the Unlabeled Antibody Peroxidase-Antiperoxidase Method. Dallas M. Purnell, Elizabeth A. Hiltman, Barry M. Heathfield, and Benjamin F. Trump.
- 2325 *In Vitro* Cellular Effects of Hematoporphyrin Derivative. Michael W. Berns, Anton Dahman, Fred M. Johnson, Robert Burns, Daryn Spiering, Mark Guiltinan, Ann Siemens, Robert Walter, William Wright, Marie Hammer-Wilson, and Alan Wile.
- 2330 Kinetics of Phenotypic Maturation of Remodeling of Hyperplastic Nodules during Liver Carcinogenesis. Katsuhiko Enomoto and Emmanuel Farber.
- \*2336 Ultrastructural Differentiation in the Nude Mouse of Transformed Cells Isolated from the Human Fetal Pituitary Gland. Viree Phew See, Anthony M. Sun, Donna J. McComb, Blair Gerrie, and Kalman Kovacs.

- 2344 Divergent Responses in Epidermal Basal Cells Exposed to the Tumor Promoter 12-O-Tetradecanoylphorbol-13-acetate. Stuart H. Yuspa, Theresa Ben, Henry Hennings, and Ulrike Licht.
  - \*2350 Enhanced Tumor Growth in Vivo by a Factor in Human Platelets and Rat Liver. Elizabeth Wilkoski, Nancy Kepner, Kim Lettzel, Cheryl Rogers, Leonard S. Jefferson, and Allan Lipton.
  - 2353 Genetic Instability Coupled to Clonal Selection as a Mechanism for Tumor Progression in the Dunning R-3327 Rat Prostatic Adenocarcinoma System. John T. Isaacs, Norio Wake, Donald S. Coffey, and Avery A. Sandberg.
  - 2362 Pyridoxine Resistance in a Rat Hepatoma Cell Line. Dennis M. DiSorbo, Laurie G. Paavola, and Gerald Litwack.
  - 2371 Identification of Tumor-associated Antigens on Ultraviolet Light-induced Tumors Using Antitumor Antibodies Developed in Ascites Fluid. G. William Fortner, Larry J. Takemoto, Lora Shehi, and Jeffrey S. Hansen.
  - 2376 Transplantation of Mouse Mammary Epithelial Cells Grown in Primary Collagen Gel Cultures. Raphael C. Guzman, Rebecca C. Osborn, Jason Yang, Kenneth B. DeOme, and Satyabrata Nandi.
  - 2384 Immunofluorescence Localization of Fibronectin in Chondrosarcoma Cartilage Matrix. Koji Kimata, Jean-Michel Foidart, John P. Penypacker, Hynda K. Kleinman, George R. Martin, and A. Tyl Hewitt.
  - \*2392 Serum-free Medium for the *in Vitro* Growth of Normal and Malignant Urinary Bladder Epithelial Cells. Edward M. Messing, John L. Fahey, Jean B. deKernion, S. M. Bhuta, and J. Eric Bubbers.
  - 2398 Influence of the Liver on the Profile of Circulating Antigens Recognized by Antiserum against Hepatoma Membrane Glycoproteins. Heinz Baumann and Darlene Eldredge.
  - 2407 Murine Leukemia Virus-mediated Transformation of a Mouse Epithelial Cell Line MMC-E. Ulf R. Rapp and Jorma Keski-Oja.
  - 2412 Antiproliferative Action of a Novel Fluorinated Uridine Analog, 5'-Deoxy-5-fluorouridine, Measured *in Vitro* and *in Vivo* on Four Different Murine Tumor Lines. Hans-Rudolf Hartmann and Alex Matter.
  - 2416 Influence of Temperature on Platinum Binding to DNA, Cell Killing, and Mutation Induction in *Escherichia coli* K-12 Cells Treated with *cis*-Diamminedichloroplatinum(II). Jaap Brouwer, Anne Marie J. Fichtinger-Schepman, Pieter van de Putte, and Jan Reedijk.
  - 2420 Isolation and Partial Identification of Eight Endogenous G<sub>i</sub> Inhibitors of JB-1 Ascites Tumor Cell Proliferation. Niels Michael Barford.
  - 2426 Promotive Effects of Steroids and Bile Acids on Hepatocarcinogenesis Initiated by Diethylnitrosamine. Ross G. Cameron, Katsumi Imada, Hiroyuki Tsuda, and Nobuyuki Ito.
  - 2429 Identification of a Fish Protein Associated with a Kinase Activity and Related to the Rous Sarcoma Virus Transforming Protein. Angelika Barnekow, Manfred Scharf, Fritz Anders, and Heinz Bauer.
  - 2434 Biological Characteristics and Estrogen and Progesterone Receptors in Mammary Carcinoma Induced in Male Sprague-Dawley Rats by a Series of Intragastric Intubations of 7,12-Dimethylbenz(a)anthracene. Hiroki Yoshida, Aichi Yoshida, Ryo Fukunishi, Bunzo Sato, Shigeru Okamoto, and Keishi Matsumoto.
  - \*2440 New Human Papilloma Virus Isolated from Epidermodysplasia Verruciformis Lesions. M. Yutsudo, T. Tanigaki, T. Tsumori, S. Watanabe, and A. Hakura.
  - \*2444 Characterization and Use of an Allotype-specific Monoclonal Antibody to Placental Alkaline Phosphatase in the Study of Cancer-related Phosphatase Polymorphism. José Luis Millán, Torgny Stigbrand, Erkki Ruoslahti, and William H. Fishman.
  - 2450 Plasma Membrane Changes of Liver and Morris Hepatoma Induced by Retinol in Rats. Reinhard Buchsel and Werner Reutter.
  - 2457 Communication: Synthesis and Degradation of Heat Shock Proteins during Development and Decay of Thermotolerance. Jacques Landry, Denis Bernier, Pierre Chretien, Louis M. Nicole, Robert M. Tanguay, and Normand Marceau.
  - \*2462 Meeting Report: Carcinogenesis and Gene Expression in Liver Cultures. Gary M. Williams and Akira Ichihara.
  - 2465 Objective Regressions of T- and B-Cell Lymphomas in Patients following Treatment with Anti-thymocyte Globulin. Richard I. Fisher, Bruce A. Silver, Christian P. Vanhaelen, Elaine S. Jaffe, and Jeffrey Cossman.
  - 2470 HLA Antigens in Patients with Germ Cell Cancers of the Testis. Marilyn S. Pollack, Davor Vugrin, William Hennessy, Harry W. Herr, Bo Dupont, and Willet F. Whitmore, Jr.
  - 2474 Human Central Nervous System Distribution of *cis*-Diamminedichloroplatinum and Use as a Radiosensitizer in Malignant Brain Tumors. David A. Stewart, Milam Leavens, Moshe Maor, Lyn Feun, Mario Luna, Jeanne Bonura, Richard Caprioli, Ti Li Loo, and Robert S. Benjamin.
  - 2480 Modulation of Natural Killer Cell-mediated Cytotoxicity by Partially Purified and Cloned Interferon- $\alpha$ . Eva Lotzová, Cherylyn A. Savary, Jordan U. Guterman, and Evan M. Hersh.
  - 2489 *In Vivo* Nonspecific Macrophage Chemotaxis in Cancer Patients and Its Correlation with Extent of Disease, Regional Lymph Node Status, and Disease-free Survival. Lucien Israël, Raymond Samak, Richard Edelstein, Jean Amouroux, Jean-Paul Ballest, and Georges de Saint Florent.
  - 2495 Hypogonadism in Male Patients with Metastatic Cancer Prior to Chemotherapy. Rowan T. Chlebowski and David Heber.
  - 2499 Treatment of Small-Cell Carcinoma of the Lung Monitored by Sequential Flow Cytometric DNA Analysis. Lars L. Vindelov, Heine H. Hansen, Anders Gersel, Fred R. Hirsch, and Nis I. Nissen.
  - 2506 Serum Levels of Carcinoembryonic Antigen and a Tumor-extracted Carcinoembryonic Antigen-related Antigen in Cancer Patients. John E. Shively, Vickie Spayth, Fong-Fu Chang, Gerald E. Metter, Leonard Klein, Cary A. Present, and Charles W. Todd.
  - 2514 Deoxycytidine and Deoxythymidine Kinase Activities in Plasma of Mice and Patients with Neoplastic Disease. Willi Kress, Zalmen Arlin, Alan Yagoda, Brian R. Leyland-Jones, and Lawrence Fiori.
  - 2518 Announcements
  - 2519 Recent Deaths
  - 2519 Erratum
  - 2521 Author Index
- July, Number 7**
- 2567 Cooxidation of the Clinical Reagent 3,5,3',5'-Tetramethylbenzidine by Prostaglandin Synthase. P. David Josephy, Ronald P. Mason, and Thomas Eling.
  - 2571 Positive Correlation between Calmodulin Content and Hepatoma Growth Rates. Jiann-Wu Wei, Harold P. Morris, and Robert A. Hickie.
  - \*2575 Multinucleation in Response to Cytochalasin B: A Common Feature in Several Human Tumor Cell Lines. Kenneth D. Somers and Margaret M. Murphy.
  - 2579 Benzo(a)pyrene Metabolism in Primary Cultures of Mouse Epidermal Cells and Untransformed and Transformed Epidermal Cell Lines. John DiGiovanni, Don R. Miller, Jody M. Singer, Aurora Viaje, and Thomas J. Slaga.
  - 2587 Metabolism and Therapeutic Efficacy of 9- $\beta$ -O-Arabinofuranosyl-2-fluoroadenine against Murine Leukemia P388. Vassilios I. Avramis and William Plunkett.
  - 2592 Measurements by Filter Elution of DNA Single- and Double-Strand Breaks in Rat Hepatocytes: Effects of Nitrosamines and  $\gamma$ -irradiation. Matthews O. Bradley, Gary Dysart, Katherine Fitzsimmons, Philip Harbach, Jane Lewin, and George Wolf.
  - 2598 Activity of 2-Fluoro-5-methylarabinofuranosyluracil against Mouse Leukemias Sensitive to and Resistant to 1- $\beta$ -O-Arabinofuranosylcytosine. J. H. Burchenal, T.-C. Chou, L. Lokys, R. S. Smith, K. A. Watanabe, T.-L. Su, and J. J. Fox.
  - \*2601 Mutagenicity of N-Nitroso Bile Acid Conjugates in *Salmonella typhimurium* and Diploid Human Lymphoblasts. Song Fuu, David E. G. Shuker, Walter W. Bishop, Kenneth R. Fairclark, Steven R. Tannenbaum, and William G. Thilly.
  - 2605 Repair of DNA Alkylation Induced in L1210 Leukemia and Murine Bone Marrow by Three Chloroethylnitrosoureas. James D. Ahlgren, Dianna C. Green, Kenneth D. Tew, and Philip S. Schein.
  - 2609 Comparative Effects of Dietary Administration of 2(3)-tert-Butyl-4-hydroxyanisole and 3,5-di-tert-butyl-4-hydroxytoluene on Several Hepatic Enzyme Activities in Mice and Rats. Young-Nam Cha and Henry S. Heine.
  - 2616 Analysis and Excision of Ring-opened Phosphoramidate Mustard-Deoxyguanine Adducts in DNA. Christopher J. Chetsanga, Gregg Poldoski, and Mark Mainwaring.
  - 2622 Changes in Susceptibility to Cytotoxic Antibody among Tumor Cells Surviving Exposure to Chemotherapeutic Agents. Susan J. Shapiro, Paul J. Leibson, Michael R. Loken, and Hans Schreiber.
  - 2628 Prostaglandin Endoperoxide Synthase-dependent Cooxidation of (+)-trans-7,8-Dihydroxy-7,8-dihydrobenzo(a)pyrene in C3H/10T1/2 Clone 8 Cells. Jeff A. Boyd, J. Carl Barrett, and Thomas E. Eling.
  - 2633 Cell Cycle Variation in <sup>125</sup>I-labeled Epidermal Growth Factor Binding in Chemically Transformed Cells. Robert A. Robinson, Earl L. Brannum, Mary E. Volkenant, and Harold L. Moses.
  - 2639 Influence of Delayed Administration of Retinyl Acetate on Mammary Carcinogenesis. David L. McCormick and Richard C. Moon.
  - 2644 Similarities in the Formation and Removal of Covalent DNA Adducts in Benzo(a)pyrene-treated BALB/3T3 Variant Cells with Different Induced Transformation Frequencies. Ko-Yu Lo and Takeo Kakunaga.
  - \*2651 Structure-Activity Relationships for the Induction of Differentiation of HL-60 Human Acute Promyelocytic Leukemia Cells by Anthracylines. Edward L. Schwartz and Alan C. Sartorelli.
  - 2656 Effect of Dihydroxyanthraquinone (NSC 279836) and Thoracic Irradiation on Long-Term Survival of Rats. Bruce F. Kimler, Sheri D. Henderson, Carl M. Mansfield, Donald J. Svoboda, and C. C. Cheng.



- 2650 Molecular Pharmacology of the Anthracycline Drug 9,10-Anthracenedicarboxaldehyde Bis[4,5-dihydro-1H-imidazol-2-yl]hydrazine Dihydrochloride (C1216, 942). George T. Bowden, Dava Garcia, Yei-Mei Peng, and David S. Alberts.
- 2666 Chemotherapy of Pancreatic Adenocarcinoma: Initial Report on Two Transplantable Models in the Syrian Hamster. Barbara K. Chang and Robert Gutman.
- 2671 Cytochrome P-450- and Flavin-containing Monooxygenase-catalyzed Formation of the Carcinogen N-Hydroxy-2-aminofluorene and Its Covalent Binding to Nuclear DNA. Clay B. Frederick, Joann B. May, Daniel M. Ziegler, F. Peter Guengerich, and Fred F. Kadlubar.
- 2678 Covalent Binding of Benzidine and N-Acetylbenzidine to DNA at the C-8 Atom of Deoxyguanosine *in Vivo* and *in Vitro*. Carl N. Martin, Frederick A. Beland, Robert W. Roth, and Fred F. Kadlubar.
- 2687 Cytotoxicity and DNA Strand Breaks by 5-Iminodaurorubicin in Mouse Leukemia L1210 Cells: Comparison with Adriamycin and 4'-[9-Acridinylamino]methanesulfonamide. Leonard A. Zwelling, Donna Kerrigan, and Stephen Michaels.
- 2692 Effects of Praziquantel, a New Antischistosomal Drug, on the Mutation and Transformation of Mammalian Cells. Paul C. Billings and Charles Heidelberger.
- 2697 Metabolic Activation of Benzo(a)pyrene by Transformable and Nontransformable C3H Mouse Fibroblasts in Culture. Eugene B. Gehly and Charles Heidelberger.
- \*2705 Establishment and Characterization of Two Human Pancreatic Cancer Cell Lines Tumorigenic in Athymic Mice. Daniel L. Dexter, George M. Malook, Patricia A. Meitner, Hendrik A. Bogars, Grant A. Jolly, Michael D. Turner, and Paul Calabrese.
- 2715 Electron Spin Resonance Studies on Intact Cells and Isolated Lipid Droplets from Fatty Acid-modified L1210 Murine Leukemia. Ido Simon, C. Patrick Burns, and Arthur A. Spector.
- 2722 Morphological, Immunological, and Biochemical Analyses of Chicken Spleen Cells Transformed *in Vitro* by Reticuloendotheliosis Virus Strain T. Tsunefumi Shibuya, Irvin Chen, Allan Howatson, and Tak W. Mak.
- 2729 Video Time-Lapse Microscopy of Phagocytosis and Intracellular Fate of Crystalline Nickel Sulfide Particles in Cultured Mammalian Cells. R. Mark Evans, Peter J. A. Davies, and Max Costa.
- 2736 An *in Vitro* Assay for Growth Regulation of Embryonal Carcinoma by the Blastocyst. Robert S. Wells.
- 2742 Cyclic Adenosine 3',5'-Monophosphate-dependent Protein Phosphorylation and the Control of Leukemia L1210 Cell Growth. Majia I. Medniks, Richard A. Jungmann, and William D. DeWys.
- 2748 Two-Dimensional Gel Electrophoresis of Membrane Proteins from the R3327 Prostate Adenocarcinoma. Patricia L. Kozlovskis, Alice J. Claffin, Mary A. Fletcher, E. Churchill McKinney, and Robert W. Rubin.
- 2757 Selective Phagocytosis of Crystalline Metal Sulfide Particles and DNA Strand Breaks as a Mechanism for the Induction of Cellular Transformation. Max Costa, J. Daniel Heck, and Steven H. Robinson.
- 2764 Interaction of Benzo(a)pyrene and Its Dihydrodiol-Epoxy Derivative with Nuclear and Mitochondrial DNA in C3H/10T1/2 Cell Cultures. Joseph M. Backer and I. Bernard Weinstein.
- 2770 Comparison of the Metastatic Properties of B16 Melanoma Clones Isolated from Cultured Cell Lines, Subcutaneous Tumors, and Individual Lung Metastases. G. Poste, J. Doll, A. E. Brown, J. Tzeng, and I. Zeidman.
- 2779 Bleomycin and Talisomycin Sequence-specific Strand Scission of DNA: A Mechanism of Double-Strand Cleavage. Christopher K. Mirabelli, Albert Ting, Cheng-Hsiung Huang, Seymour Mong, and Stanley T. Crooke.
- 2786 Electron Microscopic and Cytochemical Observations of Theophylline and Melanocyte-stimulating Hormone Effects on Melanoma Cells in Culture. Funan Hu, Kunie Mah, and Dinah J. Teramura.
- 2792 Requirements for Induction of DNA Strand Breaks by Lithocholic Acid. Mahmooda S. Kulkarni, Betty A. Cox, and K. Lemone Yielding.
- 2796 Simulated Stratospheric Ozone Depletion and Increased Ultraviolet Radiation: Effects on Photocarcinogenesis in Hairless Mice. P. Donald Forbes, Ronald E. Davies, Frederick Urbach, Daniel Berger, and Curtis Cole.
- 2804 Responses of Amphibian Embryos and Blastomeres to a Tumor-promoting Phorbol Ester. Mark S. Ellinger.
- 2813 *In Vivo* Sister Chromatid Exchange and Cellular Replication Kinetics of Normal and Lymphoma AKR Bone Marrow Cells. Jaclyn A. Biegel, Sallie S. Boggs, and Mary K. Conner.
- 2816 Cellular Replication Kinetics and Persistence of Sister Chromatid Exchange-inducing Lesions in Normal and Lymphoma AKR Cells following Exposure to 1,3-Bis(2-chloroethyl)-1-nitrosourea. Jaclyn A. Biegel, Mary K. Conner, and Sallie S. Boggs.
- 2821 Mechanism of Interaction of CC-1065 (NSC 298223) with DNA. David H. Swenson, Li H. Li, Laurence H. Hurley, J. Stefan Rokem, Gary L. Petzold, Brian D. Dayton, Tanya L. Wallace, Alice H. Lin, and William C. Krueger.
- \*2829 Effects of Teleocidin and the Phorbol Ester Tumor Promoters on Cell Transformation, Differentiation, and Phospholipid Metabolism. Paul B. Fisher, Armand F. Miranda, R. Alan Mufson, Lee S. Weinstein, Hirota Fujiki, Takeshi Sugimura, and I. Bernard Weinstein.
- 2836 Mechanism of Esophageal Tumor Induction in Rats by N-Nitrosomethylbenzylamine and Its Ring-methylated Analog N-Nitrosomethyl(4-methylbenzyl)amine. Ruth M. Hodgson, Fritz Schweinsberg, Manfred Wiessler, and Paul Kleihues.
- 2841 Inhibition of 12-O-Tetradecanoylphorbol-13-acetate-induced Epidermal Ornithine Decarboxylase Activity by Phospholipase A<sub>2</sub> Inhibitors and Lipoxygenase Inhibitor. Teruo Nakadate, Satoshi Yamamoto, Miki Ishii, and Ryuichi Kato.
- \*2846 Role of Dephosphorylation in Accumulation of 1-β-Arabinofuranosylcytosine 5'-Triphosphate in Human Lymphoblastic Cell Lines with Reference to Their Drug Sensitivity. Kuo Ate, Sachiko Saito, Katsuyoshi Hori, Maroh Suzuki, and Haruo Sato.
- \*2852 Cytotoxic Effects and Biological Activity of 2-Aza-8-germanspiro[4,5]decane-2-propanamine-8,8-dimethyl-N,N-dimethyl Dichloride (NSC 192965; Spirogermanium) *in Vitro*. Bridget T. Hill, S. A. Whalley, Angela S. Bellamy, Lorraine Y. Jenkins, and R. D. H. Whelan.
- 2857 Glycosaminoglycans in 3'-Methyl-4-dimethylaminoazobenzene-induced Rat Hepatic Cancer. Junnosuke Kojima, Nobuto Nakamura, Masako Kanatani, and Masahiko Akiyama.
- 2861 Reactivation of S-Adenosylhomocysteine Hydrolase Activity in Cells Exposed to 9-β-Arabinofuranosyladenine. Svein Helland and Per Magne Ueland.
- \*2867 Antitumor Activity of D-Mannosamine *in Vitro*: Different Sensitivities among Human Leukemia Cell Lines Possessing T-Cell Properties. Tetsuo Onoda, Shigeru Morikawa, Takayuki Harada, Yukio Suzuki, Katsumi Inoue, and Kazuyoshi Nishigami.
- 2872 Induction of Antitumor Immunity by Tumor Cells Treated with Abrin. Hiroshi Shionoya, Haruyoshi Arai, Nozomu Koyanagi, Shinzaburo Ohtake, Hiroshi Kobayashi, Takao Kodama, Hiroyuki Kato, Ta-Chen Tung, and Jung-Yaw Lin.
- 2877 Localization and Binding of N'-Nitrosomonocotine Metabolites in the Nasal Region and in Some Other Tissues of Sprague-Dawley Rats. Boel Lofberg, Eva B. Brittebo, and Hans Tjälve.
- 2884 Cell Surface Glycoprotein and Asparagine-linked Sugar Chain Patterns of Rat Erythroleukemic Cell Lines. Nobuyuki Shirashi, Hideo Yoshima, Sakan Maeda, Akira Mizoguchi, Akira Matsumoto, Taketoshi Sugiyama, and Akira Kobata.
- 2894 Enhanced Cell Killing through the Use of Cell Kinetics-directed Treatment Schedules for Two-Drug Combinations *in Vitro*. S. C. Barranco, J. T. May, W. Boerwinkle, S. Nichols, K. M. Hokanson, J. Schumann, W. Göhde, J. Bryant, and L. F. Guseman.

## CLINICAL INVESTIGATIONS

- 2899 Use of 1,2,5,6-Dianhydrogalactitol in Studies on Cell Kinetics-directed Chemotherapy Schedules in Human Tumors *in Vivo*. S. C. Barranco, C. M. Townsend, J. J. Costanzi, J. T. May, R. Baltz, A. G. O'Quinn, B. Leipzig, K. M. Hokanson, L. F. Guseman, and W. R. Boerwinkle.
- 2906 Normal Sister Chromatid Exchange Frequency in Long-Term Survivors with Acute Leukemia. Susumu Inoue, Laura Brown, Yaddanapudi Ravindranath, and Mark J. Ottenbrel.
- 2909 Familial Melanoma Associated with Dominant Ultraviolet Radiation Sensitivity. Robert G. Ramsay, Philip Chen, F. Paula Imray, Chev Kidson, Martin F. Lavin, and Athel Hockey.
- 2913 Tumor-associated Antigens in the Urine of Patients with Bladder Cancer. Sally R. De Fazio, James J. Gozzo, and Anthony P. Monaco.
- 2918 Correlation of Karyotype with Clinical Features in Acute Lymphoblastic Leukemia. Yasuhiko Kaneko, Janet D. Rowley, Daina Variakojis, Robert R. Chilcote, Irene Check, and Masaharu Sakurai.
- 2930 Clinical Pharmacological Studies of Concurrent Infusion of 5-Fluorouracil and Thymidine in Treatment of Colorectal Carcinomas. J. Lai-Sim Au, Youcef M. Rustum, E. J. Ledesma, Arnold Mittelman, and Patrick J. Creaven.
- 2938 Urinary Cyclic Nucleotides and the Cytopathology of Human Uterine Cervical Dysplasias. Chandrasekha Duttagupta, Seymour L. Romney, Prabhudas R. Palani, and N. Susan Slagle.
- 2944 A Phase I and Clinical Pharmacology Study of Intravenously Administered Carminomycin in Cancer Patients in the United States. Robert L. Cornis, Brian F. Issel, Kenneth Pittman, Sandra J. Ginsberg, Alfred Rudolph, John C. Aust, Santo M. DiFino, Roger W. Tinsley, Bernard J. Poesz, and Stanley T. Crooke.
- 2949 Flow Cytofluorometric Detection of Tumor-specific Rosette-forming Cells in Patients with Squamous Cell Carcinoma of the Head and Neck. Alex W. Tong, Arthur A. Vandenbark, William Kraybill, R. Mark Vetto, and Denis R. Burger.
- 2956 Special Announcements
- 2959 Announcements
- 2960 Errata
- 2961 Author Index

## August, Number 8

## BASIC SCIENCES

- 2963 Drug Activity and Therapeutic Synergism in Cancer Treatment. Walter H. Carter, Jr., Galen L. Wampler, Donald M. Stablein, and Eleanor D. Campbell.
- 2972 Mutagenicity of the Optical Isomers of the Diastereomeric Bay-Region Chrysene 1,2-Diol-3,4-epoxides in Bacterial and Mammalian Cells. Alexander W. Wood, Richard L. Chang, Wayne Levin, Haruhiko Yagi, Masao Tada, Kamlesh P. Vyass, Donald M. Jerina, and Allan H. Conney.

- 2977 Inhibition of Ehrlich Ascites Tumor Cell Growth by *Griffonia simplicifolia* I Lectin *In Vivo*. Allen E. Eckhardt, Barbara N. Malone, and Irwin J. Goldstein.
- 2980 Zinc-induced Resistance to Alkylating Agent Toxicity. Robert A. Tobey, M. Duane Enger, Jeffrey K. Griffith, and C. Edgar Hildebrand.
- 2985 Selenium and the Acute Effects of the Carcinogens, 2-Acetylaminofluorene and Methylazoxymethanol Acetate. William P. Banner, Queng Hui Tan, and Morris S. Zedeck.

- 2990 Induction of Spermidine N'-Acetyltransferase by Diaminonitrosamines. Isao Matsui and Anthony E. Pegg.
- 2996 Trapping of DNA-reactive Metabolites of Therapeutic or Carcinogenic Agents by Carbon-14-labeled Synthetic Polynucleotides. Jitendra R. Mehta and David B. Ludlum.
- 3000 Effects of Partial Hepatectomy on Transplanted Hepatocytes. R. L. Jirtle and G. Michalopoulos.

- \*3005 5-Fluorouracil Incorporation in DNA of Human Breast Carcinoma Cells. P. P. Major, E. Egan, D. Herrick, and D. W. Kufe.
- 3010 Chemical Quantification of Unscheduled DNA Synthesis in Cultured Hepatocytes as an Assay for the Rapid Screening of Potential Chemical Carcinogens. Felix R. Althaus, Susan D. Lawrence, Gerald L. Sattler, David G. Longfellow, and Henry C. Pitot.
- 3016 Comparison of the Mutagenicity and Teratogenicity of Cyclophosphamide and Its Active Metabolites, 4-Hydroxycyclophosphamide, Phosphoramide Mustard, and Acrolein. Barbara F. Hales.
- \*3022 Characterization of an Amino Acid Fucoside of Normal and SV40-transformed Human Embryonic Lung Cells. Philip A. Morton, Martin M. Klinger, and Sheldon M. Steiner.
- 3028 Toxicity of Diethylaminopropylamine to a Transplantable Tumor: The Significance of the Presence of Hypoxic Cells. Shirley Lehnert.
- 3033 Purification and Some Properties of a Deoxyribonuclease Kinase from L1210 Cells. Chi-Hsiung Chang, R. Wallace Brockman, and L. Lee Bennett, Jr.
- 3040 Morphological and Neoplastic Transformation of Syrian Hamster Embryo Fibroblasts by Diethylstilbestrol and Its Analogs. John A. McLachlan, Annette Wong, Gisela H. Degen, and J. Carl Barrett.
- \*3046 An Essential Role for Polyamine Biosynthesis during Human Granulopoietic Differentiation. Dharmvir S. Verma and Prasad S. Sunkara.
- 3050 Induction of Retrovirus Gene Expression in Mouse Cells by Some Chemical Mutagens. Raymond W. Tennant, James A. Otten, Fred E. Myer, and Ralph J. Rascati.
- 3056 Dietary Influence of Tyrosine and Phenylalanine on the Response of B16 Melanoma to Carbido-levodopa Methyl Ester Chemotherapy. Gary G. Meadows, Herbert F. Pierson, Rokia M. Abdallah, and Pankaj R. Desai.
- 3064 Effects of Phorbol Myristate Acetate and a Lymphokine on Cyclic 3':5'-Guanosine Monophosphate Levels and Proliferation of Macrophages. Elba M. Hadden, John R. Sadiq, Ronald G. Coffey, and John W. Hadden.
- \*3070 Growth-inhibitory Effects of  $\alpha$ , $\alpha$ -difluoromethylornithine in the Spectrum of Human Lung Carcinoma Cells in Culture. Gordon D. Luk, Gregory Goodwin, Adi F. Gazdar, and Stephen B. Baylin.
- 3074 Modification of the Sensitivity and Repair of Potentially Lethal Damage by Diethylthiocarbamate during and following Exposure of Plateau-Phase Cultures of Mammalian Cells to Radiation and *cis*-Diamminedichloroplatinum(II). Richard G. Evans, Carol Engel, Christine Wheatley, and James Nielson.
- 3079 Cell Specificity in Hepatocarcinogenesis: Preferential Accumulation of  $O^6$ -Methylguanine in Target Cell DNA during Continuous Exposure of Rats to 1,2-Dimethylhydrazine. M. A. Bedell, J. G. Lewis, K. C. Billings, and J. A. Swenberg.
- \*3084 Monoclonal Antibodies to Human Prostate and Bladder Tumor-associated Antigens. James J. Starling, Susan M. Sieg, Mary L. Beckett, Paul F. Schellhammer, Leopoldo E. Ladaga, and George L. Wright, Jr.
- \*3090 Methionine Dependency of Cell Growth in Normal and Malignant Hematopoietic Cells. Yasuhiko Kano, Shinobu Sakamoto, Tadashi Kasahara, Kazuo Kusumoto, Keita Hida, Keichi Suda, Keiya Ozawa, Yasusada Miura, and Fumimaro Takaku.
- 3093 Phorbol Diester and Epidermal Growth Factor Receptors in 12-O-Tetradecanoylphorbol-13-acetate-resistant and -sensitive Mouse Epidermal Cells. N. H. Colburn, T. D. Gindhart, G. A. Hegamyer, P. M. Blumberg, K. B. Delicos, B. E. Magun, and J. Lockyer.
- 3098 Deacylation of 12-O-[ $^3$ H]Tetradecanoylphorbol-13-acetate and [ $^3$ H]Phorbol-12,13-didecanoate in Hamster Skin and Hamster Cells in Culture. J. Carl Barrett, M. Todd Brown, and Enid E. Siskin.
- 3102 Formation of the Cross-Link 1-[ $N^3$ -Deoxyctylidyl]-2-[ $N^3$ -deoxyguanosinyl]ethane in DNA Treated with  $N,N'$ -Bis[2-chloroethyl]- $N$ -nitrosourea. William P. Tong, Marion C. Kirk, and David B. Ludlum.
- 3106 Defective Removal of DNA Cross-Links in a Repair-deficient Mutant of Chinese Hamster Cells. Raymond E. Meyn, Susan F. Jenkins, and Larry H. Thompson.
- \*3111 Growth Characteristics of Human Colonic Adenocarcinomas Propagated in the Rowett Atheric Rat. James J. Stragand, Benjamin Drewinko, Sheri D. Henderson, Bruce Grossie, L. Clifton Stephens, Barthel Barlogie, and Jose M. Trujillo.
- 3116 Effect of Glucagon on Amino Acid Transport and Cyclic Adenosine 3':5'-Monophosphate Production in Rat Hepatoma Cell Line MC-RH 8994 in Culture. Darshan S. Kelley.
- 3120 Quantitation of Aflatoxin B<sub>1</sub>-modified DNA Using Monoclonal Antibodies. John D. Groopman, Aage Haugen, Glenn R. Goodrich, Gerald N. Wogan, and Curtis C. Harris.
- 3125 Quantitative Analysis of the Cytokinetic Response of KHT Tumors *In Vivo* to 1- $\beta$ -D-Arabinofuranosylcytosine. M. G. Pallavicini, J. W. Gray, and L. J. Folstad.
- 3132 A Qualitative and Quantitative Assay for Cells Lacking Postconfluence Inhibition of Cell Division: Characterization of This Phenotype in Carcinogen-treated Syrian Hamster Embryo Cells in Culture. Shuji Nakano, Sarah A. Bruce, Hiroaki Ueo, and Paul O. P. Ts'o.
- 3138 Thymic Origin of the Prolactin-dependent Nb2 Lymphoma Cell Line. William H. Fleming, Norman M. Pettigrew, Robert J. Matusik, and Henry G. Friesen.
- \*3142 Mouse Monoclonal Antibody to a Melanoma-Carcinoma-associated Antigen Synthesized by a Human Melanoma Cell Line Propagated in Serum-free Medium. Darwin O. Chee, Robert H. Yonemoto, Stanley P. L. Leong, Gil F. Richards, Vivian R. Smith, Joan L. Klotz, Ronald M. Goto, Ronald L. Gascon, and Mary M. Drushella.
- 3148 Unusual Androgen Sensitivity of the Androgen-independent Dunning R-3327-G Rat Prostatic Adenocarcinoma: Androgen Effect on Tumor Cell Loss. John E. Humphries and John T. Isaacs.
- 3157 Development of a New Melanoma Model in C57BL/6 Mice. Jane Berkelhammer, Ronald W. Oxenhandler, Reuel R. Hook, Jr., and Jill M. Hennessy.
- 3164 Antigenic Changes in Nonhistone Proteins during Azo Dye Hepatocarcinogenesis. Warren N. Schmidt, Brian J. Gronert, David L. Page, Robert C. Briggs, and Lubomir S. Hnilica.
- \*3175 *In Vitro* Growth Promotion in Human Malignant Melanoma Cells by Fibroblast Growth Factor. Ann Richmond, David H. Lawson, Daniel W. Nixon, J. Stedman Stevens, and Rajender K. Chawla.
- 3181 Esophageal and Hepatic Microsomal Metabolism of *N*-Nitrosomethylbenzylamine and *N*-Nitrosodimethylamine in the Rat. George E. Labuc and Michael C. Archer.
- \*3187 Monoclonal Antibodies to Human Lung Tumor Antigens Demonstrated by Immunofluorescence and Immunoprecipitation. Bluma G. Brenner, Serge Jothy, Joseph Shuster, and Abraham Fuks.
- 3193 Effect of Sodium *cis*- $\beta$ -4-Methoxybenzoyl- $\beta$ -bromacrylate (Cytemba) on HeLa Cell Kinetics. Xavier Ronot, Monique Adolphe, Dominique Kuch, Patrick Jaffray, Paul Lechat, and Guy Deysson.
- 3196 Enhanced Susceptibility of Glutaraldehyde-treated Tumor Cells to Antibody-dependent Macrophage-mediated Cytotoxicity. Nobuko Iwata-Dohi, Mariko Esumi-Kurisu, Michihiro Ikenami, Keiko Sadatsune, Den'ichi Mizuno, and Masatoshi Yamazaki.
- 3201 Species-specific Activation of Phenacetin into Bacterial Mutagens by Hamster Liver Enzymes and Identification of *N*-Hydroxyphenacetin *O*-Glucuronide as a Promutagen in the Urine. Anne-Marie Camus, Marlin Friesen, Alain Croisy, and Helmut Bartsch.
- \*3209 Mechanism of Stimulation by Human Interferon of Prostaglandin Synthesis in Human Cell Lines. Akira Fuse, Ishiaq Mahmud, and Tsuguo Kuwata.
- 3215 Suppression of Cell-mediated Antitumor Immunity by Complete Freund's Adjuvant. Shohei Koyama, Takayuki Yoshioka, and Takao Sakita.
- 3220 Clonal Growth of Carcinogen-induced Enzyme-deficient Preneoplastic Cell Populations in Mouse Liver. H. M. Rabes, Th. Bucher, A. Hartmann, I. Linke, and M. Dürwald.
- 3228 Communication: Increased Amounts of Double-Stranded RNA in the Cytoplasm of Rat Liver following Treatment with Carcinogens. Gary A. Clawson and Edward A. Smuckler.

#### CLINICAL INVESTIGATIONS

- 3232 Endogenous Hormones as a Major Factor in Human Cancer. Brian E. Henderson, Ronald K. Ross, Malcolm C. Pike, and John T. Casagrande.
- 3240 Sister Chromatid Exchange and Growth Kinetics in Chronic Myeloid Leukemia. Claude Stoll, Francis Oberling, and Marie-Paule Roth.
- 3244 Placental Alkaline Phosphatase as a Tumor Marker for Seminoma. Paul H. Lange, Jose L. Millan, Torgny Stigbrand, Robert L. Vessella, Erkki Ruoslahti, and William H. Fishman.
- 3248 Further Evidence for the Use of Polyamines as Biochemical Markers for Malignant Tumors. Yoav Horn, Stuart L. Beal, Natalia Walach, Warren P. Lubich, Lina Spiegel, and Laurence J. Marton.
- 3252 Organ Site Specificity for Cancer in Chromosomal Instability Disorders. Andrew P. Feinberg and Donald S. Coffey.
- 3255 Special Announcements
- 3258 Announcements
- 3259 Errata
- 3260 Author Index

#### August, Number 8, Supplement

#### ORGANIZING COMMITTEE

Harold A. Harvey  
Allan Lipton  
Richard J. Santen

#### PROGRAM

##### List of Speakers

Introduction to the Conference, *Aromatase: New Perspectives for Breast Cancer.*  
Richard J. Santen  
Review of Studies on Estrogen Biosynthesis in the Human.  
Pentti K. Siltari

3267s

3268s

3269s

**Physiology, Biochemistry, and Biological Significance**

Chairpersons: Pentti K. Sileri  
Richard J. Santen

Aromatase in the Central Nervous System. F. Naftolin and Neil J. MacLusky	3274s
Biochemical Mechanism of Aromatization. Jack Fishman	3277s
Discussion	3279s

**Epidemiological Considerations: Aromatase, Obesity, and Breast Carcinoma**

Chairpersons: Marvin A. Kirschner  
Kenneth J. Ryan

Obesity, Androgens, Estrogens, and Cancer Risk. M. A. Kirschner, G. Schneider, N.H. Ertel, and E. Worton	3281s
Cyclic Ovarian Function and Breast Cancer. Barry M. Sherman, Robert B. Wallace, and Judy A. Bean	3286s
Relationship of Obesity to Blood Estrogens. Barnett Zumoff	3289s
Discussion	3292s

**In Vitro and in Vivo Assay Methodology and Biochemistry**

Chairpersons: Pentti K. Sileri  
Kenneth J. Ryan

In Vitro Assays of Aromatase and Their Role in Studies of Estrogen Formation in Target Tissues. Judith Weisz	3295s
Multiple Forms of Aromatase and Response of Breast Cancer Aromatase to Anti-placental Aromatase II Antibodies. Yoshio Osawa, Bunchi Tochigi, Tadayoshi Higashiyama, Carol Yarborough, Tohoru Nakamura, and Takara Yamamoto	3299s
Discussion	3305s

**Pharmacological Inhibitors of Aromatase: Biochemical Studies**

Chairpersons: Harry Brodie  
Pentti K. Sileri

Methods and Results of Aromatization Studies in Vivo. Christopher Longcope	3307s
Overview of Recent Development of Aromatase Inhibitors. Angela M. H. Brodie	3312s
Basic Studies on Aminoglutethimide. Hilton A. Salthanck	3315s
Design of Mechanism-based Inactivators of Human Placental Aromatase. Patrick A. Marcotte and Cecil H. Robinson	3322s
A New Hypothesis Based on Suicide Substrate Inhibitor Studies for the Mechanism of Action of Aromatase. Douglas F. Covey and William F. Hood	3327s
Discussion	3332s
Substituted C <sub>19</sub> Steroid Analogs as Inhibitors of Aromatase. Robert W. Brueggemeier, Catherine E. Snider, and Raymond E. Counsell	3334s
Estrogen Synthesis in Human Breast Tumor and Its Inhibition by Testolactone and Bromoandrostenedione. Thomas L. Dao	3338s
Biochemistry of Aromatase: Significance to Female Reproductive Physiology. Kenneth J. Ryan	3342s

**Pharmacological Inhibitors of Aromatase: In Vivo Studies**

Chairpersons: Christopher Longcope  
Richard J. Santen

In Vivo Effects of $\Delta^1$ -Testolactone on Peripheral Aromatization. Howard L. Judd, Robert M. Barone, Larry R. Laufer, Joseph C. Gambone, Steven L. Monfort, and Bill L. Lasley	3345s
Steroid Hormone Profiles in Women Treated with Aminoglutethimide for Metastatic Carcinoma of the Breast. E. Samojlik, R. J. Santen, M. A. Kirschner, and N. H. Ertel	3349s
In Vivo and in Vitro Pharmacological Studies of Aminoglutethimide as an Aromatase Inhibitor. R. J. Santen, S. J. Santner, N. Tilsen-Mallett, H. R. Rosen, E. Samojlik, and J. D. Veldhuis	3353s
Discussion	3357s

**Aromatase Inhibitors as Treatment of Animal Breast Carcinoma Models**

Chairperson: Richard J. Santen

Effects of Aromatase Inhibitor 4-Hydroxyandrostenedione and Other Compounds in the 7,12-Dimethylbenz(a)anthracene-induced Breast Carcinoma Model. Angela M. H. Brodie, Wesley M. Garrett, James R. Hendrickson, and Chon-Hwa Tsai-Morris	3360s
Discussion	3363s

**Aromatase in Human Breast Carcinoma—Biochemistry: In Vitro Inhibitors**

Chairpersons: Angela M. H. Brodie  
William R. Miller

Significance of Aromatase Activity in Human Breast Cancer. W. R. Miller, R. A. Hawkins, and A. P. M. Forrest	3365s
Aromatase in Human Breast Carcinoma. E. Perel, M. E. Blackstein, and D. W. Killinger	3369s
Comparative Studies of Aromatase Inhibitors in Relation to the Significance of Estrogen Synthesis in Human Mammary Tumors. Yusuf J. Abul-Hajj	3373s
Comparative Studies of Aromatase Inhibitors in Cultured Human Breast Cancer Cells. J. H. MacIndoe, G. R. Woods, L. A. Etre, and D. F. Covey	3378s
A Reassessment of the Role of Breast Tumor Aromatization. H. Leon Bradlow	3382s
Discussion	3385s

# Aromatase Inhibitors as Treatment of Human Breast Carcinoma

Chairpersons: Allan Lipton  
Trevor J. Powles

$\Delta^1$ -Testololactone: Clinical Trials.	3387s
Albert Segaloff	
Treatment of Advanced Breast Cancer with Aminoglutethimide: A 14-Year Experience.	3389s
Kenneth E. Gale	
Adequacy of Estrogen Suppression with Aminoglutethimide and Hydrocortisone as Treatment of Human Breast Cancer: Correlation of Hormonal Data with Clinical Responses.	3397s
Richard J. Santen, Thomas J. Worgul, Eugeniusz Samojlik, Alice E. Boucher, Allan Lipton, and Harold Harvey	
Aminoglutethimide in the Treatment of Metastatic Breast Cancer.	3402s
Michael B. Troner	
Aminoglutethimide in the Treatment of Advanced Postmenopausal Breast Cancer.	3405s
Adrian L. Harris, Trevor J. Powles, and Ian E. Smith	
Tamoxifen and Aminoglutethimide in Advanced Breast Cancer.	3409s
Joseph Corkery, Robert C. F. Leonard, I. Craig Henderson, Rebecca S. Gelman, Joseph Hourihan, Diane M. Ascoli, and Hilton A. Salhanick	
Adjuvant Aminoglutethimide Therapy for Postmenopausal Patients with Primary Breast Cancer: Progress Report.	3415s
R. Charles Coombes, Clair Chivers, Mitch Dowsett, Jean-Claude Gazet, Hubert T. Ford, Radka Bettelheim, Caroline Gordon, Ian E. Smith, David Zava, Trevor J. Powles, and Investigators of the Collaborative Breast Cancer Project	
Discussion	3418s

# Antiestrogens as Alternative Means of Inhibiting Estrogen Action

Chairpersons: Allan Lipton  
William L. McGuire

New Strategies for Investigating Antiestrogen Action in Breast Cancer.	3420s
William Leo McGuire	
Discussion	3422s
Antiestrogen Treatment of Breast Cancer: An Overview.	3424s
Olof H. Pearson, Andrea Manni, and Baha uddin M. Aralaf	
Discussion	3428s

# Randomized Trials of Aromatase Inhibitors versus Antiestrogens

Chairpersons: William L. McGuire  
Harold A. Harvey

Tamoxifen versus Aminoglutethimide versus Combined Tamoxifen and Aminoglutethimide in the Treatment of Advanced Breast Carcinoma.	3430s
Ian E. Smith, Adrian L. Harris, Michael Morgan, Jean-Claude Gazet, and J. Alan McKinna	
Discussion	3433s
Randomized Trial of Aminoglutethimide versus Tamoxifen in Metastatic Breast Cancer.	3434s
Allan Lipton, Harold A. Harvey, Richard J. Santen, Alice Boucher, Deborah White, Albert Bernath, Richard Dixon, George Richards, and Ahmed Shafik	
Aminoglutethimide in Tamoxifen-resistant Patients: The Melbourne Experience.	3437s
Robin M. L. Murray and Paula Pitt	
Discussion	3439s
Phase II Study of Aminoglutethimide and Medroxyprogesterone Acetate in the Treatment of Patients with Advanced Breast Cancer.	3442s
Gerd A. Nagel, Hans-Erik Wender, and Hans-Christian Blosssey	
Discussion	3444s

# Aminoglutethimide in Tamoxifen-resistant Patients

Chairpersons: Harold A. Harvey  
William L. McGuire

Use of Aminoglutethimide as Second-Line Endocrine Therapy in Metastatic Breast Cancer.	3445s
Stanley B. Kaye, Robert L. Woods, Richard M. Fox, Alan S. Coates, and Martin H. N. Tattersall	
Aminoglutethimide after Tamoxifen Therapy in Advanced Breast Cancer: M. D. Anderson Hospital Experience.	3448s
Aman U. Buzdar, Kimberly C. Powell, and George R. Blumenschein	

# Aromatase Inhibition versus Surgical Ablation

Chairpersons: Harold A. Harvey  
William L. McGuire

Cross-Over Comparison of Tamoxifen and Aminoglutethimide in Advanced Breast Cancer.	3451s
Harold A. Harvey, Allan Lipton, Deborah S. White, Richard J. Santen, Alice E. Boucher, Ahmed S. Shafik, Richard J. Dixon, and Members of The Central Pennsylvania Oncology Group	
Comparison of Surgical Adrenalectomy to Medical Adrenalectomy in Patients with Metastatic Carcinoma of the Breast.	3454s
Samuel A. Wells, Jr., Thomas J. Worgul, Eugeniusz Samojlik, Alice E. Boucher, Allan Lipton, Harold Harvey, Deborah White, Emma Smart, Charles Cox, and Richard J. Santen	

# Combinations of Agents to Inhibit Estrogenic Actions as Treatment of Breast Carcinoma

Chairpersons: William L. McGuire  
Harold A. Harvey

Clinical Trial of Multiple Endocrine Therapy for Metastatic and Locally Advanced Breast Cancer with Tamoxifen-Aminoglutethimide-Danazol Compared to Tamoxifen Used Alone.	3459s
Trevor J. Powles, C. Gordon, and R. C. Coombes	
Progress Report on Two Clinical Trials in Women with Advanced Breast Cancer. Trial I: Tamoxifen versus Tamoxifen plus Aminoglutethimide; Trial II: Aminoglutethimide in Patients with Prior Tamoxifen Exposure.	3461s
James N. Ingle, Stephanie J. Green, David L. Ahmann, John H. Edmonson, William C. Nichols, Stephen Frytak, and Joseph Rubin	
Discussion	3464s
Closing Remarks to the Conference, Aromatase: New Perspectives for Breast Cancer.	3468s
Allan Lipton, Harold A. Harvey, and Richard J. Santen	



## September, Number 9

## BASIC SCIENCES

- 3471 **Promethes and Pandora—Cancer Research on Our Diamond Anniversary: Presidential Address.** Sidney Weinhouse.
- 3475 **Disposition and Metabolism of the Carcinogen Reduced Michler's Ketone in Rats.** Dennis J. McCarthy, Robert F. Struck, Tzu-Wen Shih, William J. Sulung, Donald L. Hill, and Steven E. Enke.
- 3480 **Role of Depurination in Mutagenesis by Chemical Carcinogens.** Roeland M. Schaper, Barry W. Glickman, and Lawrence A. Loeb.
- 3486 **Predominance of a Cell Population Less Sensitive to Carcinogenesis in Neoplastic Cells of 3-Methylcholanthrene-induced Tumors in Mouse Aggregation Chimeras.** Leonilla Ebling and Georg Sauermaier.
- 3492 **Role of Estrogen and Prolactin in the Growth and Receptor Levels of N-Nitrosomethylurea-induced Rat Mammary Tumors.** Andrea Manni, John Rainieri, Baha uddin M. Arafah, Hugh M. Finegan, and Olof H. Pearson.
- 3496 **Specific High-Affinity Binding of the Phorbol Ester Tumor Promoter 12-O-Tetradecanoylphorbol-13-acetate to Isolated Nuclei and Nuclear Macromolecules in Mouse Epidermis.** Frank W. Perrella, Curtis L. Ashendel, and R. K. Boutwell.
- \*3502 **Bleomycin-induced Increase of Collagen Turnover in IMR-90 Fibroblasts: An *In Vitro* Model of Connective Tissue Restructuring during Lung Fibrosis.** Kenneth M. Sterling, Jr., Thomas A. DiPetrillo, John P. Kotch, and Kenneth R. Cutroneo.
- \*3507 **Cysteine S-Phosphate Hydrolysis by Pure Human Alkaline Phosphatases and by Sera from Patients with Lymphoproliferative Disorders.** Anita L. Gainer and Robert A. Stinson.
- 3510 **Metabolism of Testosterone by GR Mouse Mammary Tumors.** Yusuf J. Abul-Hajj and David T. Kiang.
- 3514 **Enhancing Activity of Various Immunomodulating Agents on the Delayed-Type Hypersensitivity Response in Mice.** Anna Bartocci, Elizabeth L. Read, Roy D. Welker, Erich Schlick, Vasilios Papademetriou, and Michael A. Chirigos.
- 3519 **Differential Effects of Retinoic Acid and 7,8-Benzoflavone on the Induction of Mouse Skin Tumors by the Complete Carcinogenesis Process and by the Initiation-Promotion Regimen.** Ajit K. Verma, Elizabeth A. Conrad, and R. K. Boutwell.
- 3526 **Purification and Properties of Inorganic Pyrophosphatase of Rat Liver and Hepatoma 3924A.** Chiaki Yoshida, Harshida Shah, and Sidney Weinhouse.
- \*3532 **CC-1065 (NSC 298223), a Most Potent Antitumor Agent: Kinetics of Inhibition of Growth, DNA Synthesis, and Cell Survival.** Bjoy K. Bhuyan, Kenneth A. Newell, Sheri L. Crampton, and Daniel D. Von Hoff.
- 3538 **Vitamin B<sub>6</sub> Metabolism in Liver and Liver-derived Tumors.** Natalie T. Messler, Louise M. Nutter, and John W. Thanassi.
- 3544 **Nickel Distribution and DNA Lesions Induced in Rat Tissues by the Carcinogen Nickel Carbonate.** Richard B. Ciccarelli and Karen E. Wetterhahn.
- 3550 **Modulation of 1- $\beta$ -D-Arabinofuranosylcytosine Metabolism and Cytotoxicity in L1210 Cells by Fluoropyrimidine Pretreatment.** Steven Grant and Ed Cadman.
- 3557 **Alterations in Hepatic and Splenic Microsomal Electron Transport System Components, Drug Metabolism, Heme Oxygenase Activity, and Cytochrome P-450 Turnover in Murphy-Sturm Lymphosarcoma-bearing Rats.** Brent A. Schacter and Pat Kurz.
- 3565 **Actions of cis-Diamminedichloroplatinum on Cell Surface Nucleic Acids in Cancer Cells as Determined by Cell Electrophoresis Techniques.** David A. Juckett and Barnett Rosenberg.
- 3574 **Differential Effects of Anthracycline Drugs on Rat Heart and Liver Microsomal Reduced Nicotinamide Adenine Dinucleotide Phosphate-dependent Lipid Peroxidation.** Edward G. Minnaugh, Michael A. Trush, Erika Ginsburg, and Theodore E. Gram.
- 3583 **Digitized Video Fluorescence Microscopy Studies of Adriamycin Interaction with Single P388 Leukemic Cells.** Saul Yanovich and Robert N. Taub.
- 3587 **Induction of Ornithine Decarboxylase Activity in Mouse Urinary Bladder by L-Tryptophan and Some of Its Metabolites.** Masahiro Matsushima, Sadamu Takano, Erdogan Erturk, and George T. Bryan.
- 3592 **Potentiation of the Antimitochondrial and Antiproliferative Effects of Bis(guanidylhydrazones) by Phenethylguanidine.** Janusz Z. Byczkowski, Lech Zychlinski, and Carl W. Porter.
- 3596 **Effect of Fatty Acid Modification of Cultured Hepatoma Cells on Susceptibility to Natural Killer Cells.** Tai-June Yoo, Chao-Ying Kuo, Arthur A. Spector, Gerene M. Denning, Rachel Floyd, Stephen Whiteaker, Heidi Kim, Jim Kim, Mohamet Abbas, and Thomas W. Budd.
- 3601 **Suppression of the Cytotoxic Response of Mouse Lymphocytes to Syngeneic Tumor Cells by Tumor-promoting Phorbol Ester.** Gay G. Fredrickson and Michael Bennett.
- 3607 **Cross-Reacting Antigens on LS1784 Cells Which Serve as Targets for Cytotoxic T-Lymphocyte Lysis during Establishment of the Tumor Dormant State.** Kent J. Weirhold and E. Frederick Wheelock.
- 3617 **Inhibition of Concanavalin A Response during Osteopetrosis Virus Infection.** Joseph A. Price and Ralph E. Smith.
- 3625 **Effect of Cellular Fatty Acid Alteration on Hyperthermic Sensitivity in Cultured L1210 Murine Leukemia Cells.** M. Michael Guffy, Jay A. Rosenberger, Ido Simon, and C. Patrick Burns.
- 3631 **Comparison of the Effects of Dihydroxyanthraquinone and Adriamycin on the Survival of Cultured Chinese Hamster Cells.** Bruce F. Kimler and C. C. Cheng.
- 3637 **Correlation of Cytotoxicity with Total Intracellular Exposure to 9- $\beta$ -D-Arabinofuranosyladenine 5'-Triphosphate.** Donna S. Shewach and William Plunkett.
- 3642 **Feeding Response of Tumor-bearing Rats to Insulin and Insulin Withdrawal and the Contribution of Autonomously Tumor Drain to Cachectic Depletion.** S. D. Morrison.
- 3648 **Teniposide (VM-26) and Etoposide (VP-16-213)-induced Augmentation of Methotrexate Transport and Polyglutamylation in Ehrlich Ascites Tumor Cells *In Vitro*.** Jack C. Yalowich, M. P. Fry, and I. David Goldman.
- 3654 **Origin of Excess Urinary Nitrate in the Rat.** James P. Witter, Edward Balish, and S. John Gately.
- 3659 **Linear Dose-Response Curve for the Hepatic Macromolecular Binding of Aflatoxin B<sub>1</sub> in Rats at Very Low Exposures.** B. Scott Appleton, M. P. Goethius, and T. C. Campbell.
- 3663 **Regression of Canine Mammary Carcinoma after Immunoadsorption Therapy.** Thomas V. Holohan, Terence M. Phillips, Charles Bowles, and Albert Deisseroth.
- 3669 **Induction of Ornithine Decarboxylase in Hamster Tracheal Epithelial Cells Exposed to Asbestos and 12-O-Tetradecanoylphorbol-13-acetate.** Joanne M. Landesman and Brooke T. Mossman.
- \*3676 **Effects of Cyclophosphamide and Polycyclic Aromatic Hydrocarbons on Cell Growth and Mixed-Function Oxidase Activity in a Human Colon Tumor Cell Line.** Wan Fen Fang and Henry W. Strobel.
- 3682 **General Process of Induction of Squamous Metaplasia by Cyclic Adenine Nucleotide and Prostaglandins: Mouse Prostate Glands.** Frederick V. Schaefer, R. Philip Custer, and Sam Sorof.
- 3688 **Protective Role of Thiols in Cyclophosphamide-induced Urotoxicity and Depression of Hepatic Drug Metabolism.** Michael J. Berrigan, Anthony J. Marinello, Zlatko Pavelic, Cynthia J. Williams, Robert F. Struck, and Hira L. Gurtoo.
- \*3696 **Xenografts of Human Bladder Cancer in Immune-deprived Mice.** Asya Kovnat, Margaret Armitage, and Ian Tannock.
- \*3704 **High-Density Lipoproteins and the Proliferation of Human Tumor Cells Maintained on Extracellular Matrix-coated Dishes and Exposed to Defined Medium.** D. Gospodarowicz, G.-M. Lui, and R. Gonzalez.
- \*3714 **Monoclonal Antibodies to a Human Prostate Antigen.** Arthur E. Frankel, Robert V. Rouse, Ming C. Wang, T. Ming Chu, and Leonard A. Herzenberg.
- 3719 **Biological Characterization of the C-1300 Murine Neuroblastoma: An *In Vivo* Neural Crest Tumor Model.** Gerard Pons, Robert F. O'Dea, and Bernard L. Mirkin.
- \*3724 **Unique Cell Surface Glycoprotein Expression in Hairy Cell Leukemia: Effect of Phorbol Ester Tumor Promoters on Surface Glycoproteins, Cell Morphology, and Adherence.** Michael W. Lockney, Harvey M. Golomb, and Glyn Dawson.
- 3729 **Separation and Characterization of Neoplastic Cell Subpopulations of a Transplantable Rat Pancreatic Adenocarcinoma.** Michael J. Bechic and Janardan K. Reddy.
- 3741 **Seasonal and Geographical Changes of Spontaneous Skin Papillomas in the Japanese Newborn *Cynops pyrrhogaster*.** Makoto Asashima, Shinji Komazaki, Chikako Satou, and Tsutomu Onuma.
- 3747 **Increased Uridine Diphosphate-Glucuronyltransferase Activity in Preneoplastic Liver Nodules and Morris Hepatomas.** Karl Walter Bock, Werner Lilienthal, Hugo Pfeil, and Lennart C. Eriksson.
- \*3753 **Biochemical Basis for the Differential Sensitivity of Human T- and B-Lymphocyte Lines to 5-Fluorouracil.** Anita A. Piper and Richard M. Fox.
- 3761 **Inhibition of Dimethylnitrosamine Metabolism by Some Heterocyclic Compounds and by Substrates and Inhibitors of Monooxygenase in the Rat.** John C. Phillips, Christine Bex, Brian G. Lake, Richard C. Cottrell, and Sharat D. Gangoli.
- 3766 **Molecular Structure of ( $\pm$ )-7,8,9,10-Tetrahydroxy-7,8,9,10-tetrahydrobenzo(a)pyrene Determined by X-Ray Crystallography.** S. Nettle, A. Subbiah, R. Kuroda, and C. S. Cooper.
- 3769 **Partial Circumvention of Resistance to 6-Mercaptopurine by Acylated P<sub>1</sub>P<sub>2</sub>-Bis(6-mercaptopurine-9- $\beta$ -D-ribofuranoside-5') Pyrophosphate Derivatives.** David M. Tidd, Ian Gibson, and Peter D. G. Dean.
- 3776 **Heterogeneity of the Growth and Metastatic Behavior of Cloned Cell Lines Derived from a Primary Rhabdomyosarcoma.** Fergus L. Sweeney, Jacques Del-Deprin, Marie-France Poupon, and I. Chouroulinkov.
- \*3783 **DNA Damage and Selective Toxicity of Dopa and Ascorbate-Copper in Human Melanoma Cells.** P. G. Parsons and L. E. Morrison.
- \*3789 **Growth State-specific Responsiveness of Primary Cultures of a Nude Mouse-xenografted Human Colon Carcinoma to 4'-Deoxydoxorubicin and a Crude Human Leukocyte  $\alpha$ -Interferon Preparation.** Jorgen van der Bosch and Karimullah A. Zivi.
- \*3793 ***In Vitro* Responses of Nude Mouse-xenografted Human Colon Carcinomas Exposed to Doxorubicin Derivatives in Tissue Culture and in the Mouse.** Karimullah A. Zivi, Jorgen van der Bosch, and Nathan O. Kaplan.
- 3798 **Accumulation and Release of Vinblastine and Vincristine by HeLa Cells: Light Microscopic, Cinematographic, and Biochemical Study.** Anneliese M. Lengsfeld, Joseph Dietrich, and Brigitte Schultze-Maurer.
- 3806 **Necessity of Bile for and Lack of Inhibitory Effect of Retinoid on Development of Forestomach Papillomas in Nontreated Mutant Mice of the W/W<sup>o</sup> Genotype.** Masao Yokoyama, Yukihiko Kitamura, Takashi Kohrogi, and Isao Miyoshi.
- \*3810 **Inhibition of DNA Replication and Growth of Several Human and Murine Neoplastic Cells by Aphidicolin without Detectable Effect upon Synthesis of Immunoglobulins and HLA Antigens.** Guido Pedrali-Noy, Mariaclara Belvedere, Tiziana Crepaldi, Federico Focher, and Silvio Spadari.
- 3814 **Dose- and Cell Cycle-dependent O<sup>6</sup>-Methylguanine Elimination from DNA in Regenerating Rat Liver after [<sup>14</sup>C]Dimethylnitrosamine Injection.** H. M. Rabes, R. Wilhelm, R. Kerler, and G. Rode.
- \*3822 **S-Adenosylhomocysteine Hydrolase Inhibition in Deoxyadenosine-treated Human T-Lymphoblasts and Resting Peripheral Blood Lymphocytes.** Richard F. Kefford, Megan A. Helmer, and Richard M. Fox.
- 3828 **Expression of Type C Viral Glycoproteins on PB15 Cells: Higher Expression of M<sub>70,000</sub> Glycoprotein-containing Glycoprotein on Immunogenic Variants.** P. C. Jacquemin.
- 3837 **Distribution and Metabolism of 1-Propyl-1-nitrosourea in Rats.** Akira Tanaka and Mitsuo Watanabe.
- \*3843 **Phorbol Ester-induced Differentiation of Human T-Lymphoblastic Cell Line HPB-ALL.** Yoshinobu Nakao, Shuchi Matsuda, Takuo Fujita, Shaw Watanabe, Shigeru Morikawa, Takahiko Saita, and Yohei Ito.
- 3851 **Tumoricidal Effect of Macrophages Exposed to Adriamycin *In Vivo* or *In Vitro*.** François Martin, Anne Caignard, Olivier Olsson, Jean François Jeannin, and Annick Leclerc.
- \*3858 **Growth of Human Hepatoma Cell Lines with Differentiated Functions in Chemically Defined Medium.** Hidekazu Nakabayashi, Kazuhisa Taketa, Keiko Miyano, Takashi Yamane, and Jiro Sato.

## CLINICAL INVESTIGATIONS

- 3864 **Effect of Diet on Plasma and Urinary Hormones in South African Black Men with Prostatic Cancer.** P. Hill, E. L. Wynder, L. Garbaczewski, and A. R. P. Walker.

- 3870 Effects of 12-O-Tetradecanoylphorbol-13-acetate on Fibroblasts from Individuals Genetically Predisposed to Cancer. Michael H. Antecol and Baird B. Mukherjee.
- 3880 Augmentation of Natural Killer Cell Activity after Arterial Embolization of Renal Carcinomas. August Bakke, Jan H. Gøthlin, Svein A. Haukaas, and Terje Kalland.
- 3884 Clinical Pharmacology of 9- $\beta$ -D-Arabinofuranosyladenine in Combination with 2'-Deoxycoformycin. Ram P. Agarwal, Julie Blatt, James Miser, Stephen Sallan, Jeffrey M. Lipton, Gregory H. Reaman, John Holcenberg, and David G. Poplack.

- 3887 Pattern of Isoaccepting Transfer RNAs Common to 26 Patients with Hodgkin's Disease. Therese L. Murphy and Ian A. Cooper.
- 3892 Phase I and Pharmacological Study of Acivicin by 24-Hour Continuous Infusion. Geoffrey R. Weiss, J. Patrick McGovern, Debra Schade, and Donald W. Kufe.
- 3896 Clinical and Pharmacological Studies of Methotrexate-Minimal Leucovorin Rescue plus Fluorouracil. Michael C. Wiemann, Frank J. Cummings, Henry G. Kaplan, Ellen N. Spremulli, Charles H. Doolittle, and Paul Calabresi.

- 3901 Special Announcements
- 3904 Announcements
- 3905 Recent Deaths
- 3906 Erratum
- 3907 Books Received
- 3909 Author Index

# October, Number 10

- 3911 Has the Well Gone Dry? The First Cain Memorial Award Lecture. John A. Montgomery.

## BASIC SCIENCES

- 3918 Morphological Classification of Mouse Liver Tumors Based on Biological Characteristics. Frederick F. Becker.
- \*3924 Induction of Differentiation of the Human Histiocytic Lymphoma Cell Line U-937 by Retinoic Acid and Cyclic Adenosine 3':5'-Monophosphate-inducing Agents. Inge L. Olsson and Theodore R. Breitman.
- \*3928 Priming of Human Myeloid Leukemic Cell Lines HL-60 and U-937 with Retinoic Acid for Differentiation Effects of Cyclic Adenosine 3':5'-Monophosphate-inducing Agents and a T-Lymphocyte-derived Differentiation Factor. Inge L. Olsson, Theodore R. Breitman, and Robert C. Gallo.
- 3934 Enhanced Survival of Adriamycin-treated Chinese Hamster Cells by 2-Deoxy-D-glucose and 2,4-Dinitrophenol. J. R. Colofiore, G. Ara, D. Berry, and J. A. Belli.
- 3941 Inhibition of Ultraviolet-B Epidermal Ornithine Decarboxylase Induction and Skin Carcinogenesis in Hairless Mice by Topical Indomethacin and Triamcinolone Acetonide. Nicholas J. Lowe, Michael J. Connor, James Breeding, and Marc Chalel.
- 3944 Effect of Verapamil on Malignant Tissue Blood Flow in SMT-2A Tumor-bearing Rats. William G. Kaslin, Jr., Shashi Shrivastav, David G. Shand, and Randy L. Jirtle.
- \*3950 *In Vitro* X-Ray Sensitivity in Ataxia Telangiectasia Homozygote and Heterozygote Skin Fibroblasts under Oxidative and Hypoxic Conditions. Timothy J. Kinsella, James B. Mitchell, Scott McPherson, Angelo Russo, and Frank Tietze.
- 3957 Biochemical Effects of 2'-Fluoro-5-methyl-1- $\beta$ -D-arabinofuranosyluracil and 2'-Fluoro-5-iodo-1- $\beta$ -D-arabinofuranosylcytosine in Mouse Leukemic Cells Sensitive and Resistant to 1- $\beta$ -D-Arabinofuranosylcytosine. Ting-Chao Chou, Joseph H. Burchenal, Franz A. Schmid, Thomas J. Braun, Tsann-Long Su, Kyoichi A. Watanabe, Jack J. Fox, and Frederick S. Philips.
- 3964 High-Dose 5-Fluorouracil with Delayed Uridine "Rescue" in Mice. Daniel S. Martin, Robert L. Stoff, Robert C. Sawyer, Sol Spiegelman, and Charles W. Young.
- \*3971 Differential Segregation Patterns of Human Chromosomes in Somatic Cell Hybrids Constructed with Human B-Lymphocytes and Human Melanoma Cells. Mark C. Glassy and Soldano Ferrone.
- 3974 Induction of Unscheduled DNA Synthesis in Primary Culture of Dog, Rat, and Mouse Urothelial Cells by Arylamines and Nitrofurantoin Derivatives. Ching Y. Wang, E. M. Linsmaier-Bednar, Charles D. Garner, and Meisue Lee.
- \*3978 Human Tumor-associated Antigens Detected by Serological Techniques: Analysis of Autologous Humoral Immune Responses to Primary and Metastatic Human Sarcomas by an Enzyme-linked Immunosorbent Solid-Phase Assay (ELISA). Jack A. Roth and Robert A. Wesley.
- \*3987 Biochemical and Chemotherapeutic Studies on 2,4-Diamino-6-(2,5-dimethoxybenzyl)-5-methylpyrido [2,3-d]pyrimidine (BW 301U), a Novel Lipid-soluble Inhibitor of Dihydrofolate Reductase. David S. Duch, Mark P. Edelstein, Seaton W. Bowers, and Charles A. Nichol.
- 3995 Neutralization of Feline Leukemia Virus with Feline Antisera to Leukocyte Alloantigens. T. H. Lee, M. Essex, F. de Noronha, and J. Azocar.

- \*4000 Susceptibility of Fanconi's Anemia Lymphoblasts to DNA-cross-linking and Alkylating Agents. Ryoji Ishida and Manuel Buchwald.
- \*4007 Differential Effect of N-(Phosphonacetyl)-L-aspartate on 1- $\beta$ -D-Arabinofuranosylcytosine Metabolism and Cytotoxicity in Human Leukemia and Normal Bone Marrow Progenitors. Steven Grant, Frank Rauscher III, and Ed Cadman.
- 4014 Temporal Dynamics of Cortisol and Dexamethasone Prevention of Benzo(a)pyrene-induced Morphological Transformation of Syrian Hamster Cells. John W. Greiner and Charles H. Evans.
- 4018 A Model System for Studying Metastasis Using the Embryonic Chick. Ann F. Chambers, Roslyn Shafir, and Victor Ling.
- \*4026 Bleomycin Hydrolase Activity and Cytotoxicity in Human Tumors. John S. Lazo, Carl J. Boland, and Peter E. Schwartz.
- 4032 Metabolism and Covalent Binding to DNA of 7-Methylbenzo(a)pyrene. Takeshi Kinoshita, Maria Konieczny, Regina Santella, and Alan M. Jeffrey.
- 4039 3-Deazaquinoline: Inhibition of Initiation of Transition in L1210 Cells. Rachel S. Rivest, David Irwin, and H. George Mandel.
- 4045 Tumor-initiating Activity and Metabolism of Polymethylated Phenanthrenes. Edmond J. LaVoie, Victoria Bedenko, Lorraine Tulley-Freiler, and Dietrich Hoffmann.
- 4050 DNA Strand Breaks Caused by Inhibitors of DNA Synthesis: 1- $\beta$ -D-Arabinofuranosylcytosine and Aphidicolin. R. J. Fram and D. W. Kufe.
- 4054 Clonal Analysis of the Stepwise Appearance of Anchorage Independence and Tumorigenicity in CAK, a Permanent Line of Mouse Cells. David G. Thomassen and Robert DeMars.
- 4064 Intraspecies Variation in Transfer RNA Methyltransferases of Inbred Mice. Mark Dizik, Noel M. Relyea, and Elsie Wainfan.
- 4068 Immunological and Pharmacological Characterization of Poly-D-alanyl-modified *Erwinia carotovora* L-Asparaginase. Jack R. Uren, Betty J. Hargis, and Peter Beardsley.
- 4072 Biological Properties of N<sup>1</sup>-Spermidine Derivatives and Their Potential in Anticancer Chemotherapy. Carl W. Porter, Raymond J. Bergeron, and Neal J. Stolowich.
- 4079 Hypothetical Mechanism of Therapeutic Synergism Induced by the Combination of 6-Thioguanine and 3-[(4-Amino-2-methyl-5-pyrimidinylmethyl)-1-(2-chloroethyl)-1-nitrosourea Hydrochloride]. Shuichi Fujimoto, Makoto Ogawa, and Yoshio Sakurai.
- \*4086 Heterogeneity in Growth Pattern and Drug Sensitivity of Primary Tumor and Metastases in the Human Tumor-Colony-forming Assay. Peter Schlag and Wolfgang Schremel.
- 4090 Amino Acid, Glucose, and Lactic Acid Utilization *In Vivo* by Rat Tumors. Leonard A. Sauer, J. Webster Stayman III, and Robert T. Dauchy.
- 4098 Localization of a M. 52,000 Keratin in Basal Epithelial Cells of the Mouse Bladder and Expression throughout Neoplastic Progression. Ian C. Summerhayes and Ian Bo Chen.
- \*4110 Heterogeneity of HLA-A, B, Ia-like, and Melanoma-associated Antigen Expression by Human Melanoma Cell Lines Analyzed with Monoclonal Antibodies and Flow Cytometry. Scott W. Burchiel, John C. Martin, Kohzoh Imai, Soldano Ferrone, and Noel L. Warner.

- 4116 Neoplastic Transformation of Syrian Hamster Epidermal Cells *In Vitro*. Joseph F. Sina, Matthews O. Bradley, and Thomas G. O'Brien.
- \*4124 Microtubule Complexes Correlated with Growth Rate and Water Proton Relaxation Times in Human Breast Cancer Cells. Paula T. Beall, B. R. Brinkley, Donald C. Chang, and Carlton F. Hazlewood.
- 4131 Chromosomal Changes Associated with Progression of the Dunning R-3327 Rat Prostatic Adenocarcinoma System. N. Wake, J. Isaacs, and A. A. Sandberg.
- 4143 Expression of  $\gamma$ -Glutamyl Transpeptidase Activity in the Developing Mouse Tooth, Intervertebral Disc, and Hair Follicle. William L. Richards and Erle Grieg Astrup.
- 4153 Alkylation and *de Novo* Synthesis of Liver Cell DNA from C3H Mice during Continuous Dimethylnitrosamine Exposure. C. Lindamood III, M. A. Bedell, K. C. Billings, and J. A. Swenberg.
- 4158 Histochemical and Cytochemical Study of Butyrylcholinesterase Activity in Rat Hepatocellular Carcinomas Induced by 3-Methyl-4-dimethylaminoazobenzene. Shigeaki Yokoyama, Aiko Kaneko, Kimmaro Dempo, Noriyasu Chisaka, Michio Mori, and Tamenori Onoe.
- 4164 Protein Modifications Induced in Mouse Epidermis by Potent and Weak Tumor-promoting Hyperplasiogenic Agents. Karen Gray Nelson, Katherine B. Stephenson, and Thomas J. Slaga.
- 4176 Keratin Modifications in Epidermis, Papillomas, and Carcinomas during Two-Stage Carcinogenesis in the SENCAR Mouse. Karen Gray Nelson and Thomas J. Slaga.
- \*4182 Induction of Monocyte-Macrophage Differentiation in a New Diploid Line of Human Hematopoietic Cells (CM-S) by Phorbol Esters. Gianni Monaco, Eliana Vignetti, Massimo Lancieri, Paolo Cornaglia-Ferraris, Giorgio Lambertenghi-Deliliers, and Roberto Revoltella.
- 4190 Influence of Time and Temperature on the Kinetics of Thermotolerance in L.A. Cells *In Vitro*. Ole S. Nielsen and Jens Overgaard.
- 4197 Cytotoxic T-Cell-mediated Antitumor Effect of Levamisole against Murine Syngeneic Fibrosarcoma. Katsushige Gomi, Makoto Morimoto, and Kikuo Nomoto.
- 4203 Effect of Acute Doses of 2-Acetylaminofluorene on the Capacity of Rat Liver to Repair Methylated Purines in DNA *In Vivo* and *In Vitro*. Donald P. Cooper, Peter J. O'Connor, and Geoffrey P. Margison.
- 4210 Adenine Phosphoribosyltransferase Deficiency in Cultured Mouse Mammary Tumor FM3A Cells Resistant to 4-Carbamoylimidazolium 5-Olate. Hideki Koyama and Hiro-aki Kodama.
- 4215 Benzo(a)pyrene Metabolism by Rat Liver Microsomes: Effects of Adding Purified Glutathione S-Transferases A, B, and C. Ralf Morgenstern, Claes Guthenberg, Bengt Mannervik, Joseph W. DePierre, and Lars Ernster.
- 4222 Correlations of Inheritance and Expression between a Tumor Gene and the Cellular Homolog of the Rous Sarcoma Virus-transforming Gene in *Xiphophorus*. Manfred Scharf, Angelika Barnekow, Heinz Bauer, and Fritz Anders.
- \*4228 Characterization of Some Glycolytic Enzymes from Human Retina and Retinoblastoma. Frits A. Beemer, Annie M. C. Vlug, Gert Rijkse, Alfred Hamburg, and Gerard E. J. Staal.
- 4233 Superoxide Dismutase in Various Tissues from Rabbits Bearing the Vx-2 Carcinoma in the Maxillary Sinus. Yoshikazu Takada, Tomoo Noguchi, Takashi Okabe, and Minoru Kajiyama.

- 4236 Sequential Changes in Tumor Development Induced by 1,4-Dinitrosopiperazine in the Nasal Cavity of F344 Rats. Tsuyoshi Takano, Tomoyuki Shirai, Tadashi Ogiso, Hiroyuki Tsuda, Shunkichi Baba, and Nobuyuki Ito.

\*4241 Reversibility of Bronchial Cell Atypia. Gert Auer, Jutaru Ono, Magnus Naselli, Torbjorn Caspersen, Harubumi Kato, Chiori Konaka, and Yoshihiro Hayata.

\*4248 Interactions between Normal Epithelial and Squamous Carcinoma Cells in Monolayer Culture. Gerald C. Easty, Gisela Haemmerli, Dorothy M. Easty, and Peter Strauß.

4256 Communication: Immunohistochemical Detection of an Estrogen-regulated Protein by Monoclonal Antibodies. Daniel R. Ciocka, David J. Adams, Robert J. Bjercke, Dean P. Edwards, and William L. McGuire.

\*4259 Communication: Several New Monoclonal Antibodies Directed to Human T-Cell Leukemia Antigens. Shigeru Negoro and Ben K. Seon.

4263 Letter to the Editor. Correspondence re: J. H. Pincus, A. K. Jameson, and A. E. Brandt. Immunotherapy of L1210 Leukemia Using Neuraminidase-modified Plasma Membranes Combined with Chemotherapy. *Cancer Res.*, 41: 3082-3086, 1981. J. J. Killian, A. E. Brandt.

## CLINICAL INVESTIGATIONS

4265 Phase I and Pharmacological Studies of Adriamycin Administered Intraperitoneally to Patients with Ovarian Cancer. Robert F. Ozols, Robert C. Young, James L. Speyer, Paul H. Sugarbaker, Raymond Greene, Jean Jenkins, and Charles E. Myers.

4270 Autologous Bone Marrow Transplantation in the Therapy of Small Cell Carcinoma of the Lung. L. Michael Glode, William A. Robinson, Dietrich W. Hartmann, Jakob J. Klein, Mathew R. Thomas, and Nancy Morton.

4276 Increase of HLA-DR4 in Melanoma Patients from Alabama. Bruce O. Barger, Ronald T. Acton, Seng-Jaw Soong, Jeffrey Roseman, and Charles Balch.

4280 In Vivo Measurements in Familial Polyposis: Kinetics and Location of Proliferating Cells in Colonic Adenomas. Charles Lightdale, Martin Lipkin, and Eleanor Deschner.

4284 Analysis of the Fecal Microflora and Its Enzymatic Activity in Individuals Genetically Predisposed to Colon Cancer. Jane D. Keathley and Cynthia A. Needham.

4289 Cytogenetic Studies of Long-Term Survivors of Childhood Acute Lymphoblastic Leukemia. Leslie L. Robison, Diane C. Arthur, David W. Ball, Thomas J. Danzi, and Mark E. Nesbit.

4293 Metabolic Balance across the Leg in Weight-losing Cancer Patients Compared to Depleted Patients without Cancer. K. Benneqård, E. Edén, L. Ekman, T. Schersten, and K. Lundholm.

4300 Prostatic Hexosaminidase Activity in Patients with Benign Prostatic Hyperplasia and Prostatic Carcinoma. Garnett B. Whitehurst, Jay P. Mashburn, Thomas G. Pretlow II, Edwin L. Bradley, Jr., and Emily A. Boohaker.

4304 Announcements

4306 Recent Death

4306 Erratum

4307 Books Received

4308 Author Index

## November, Number 11

4309 Chemotherapy Strategies to Improve the Control of Hodgkin's Disease: The R. I. and Hinda Rosenthal Foundation Award Lecture. Gianni Bonadonna.

## BASIC SCIENCES

\*4321 Characterization of an Adenosine 5'-Triphosphate- and Deoxyadenosine 5'-Triphosphate-activated Nucleotidase from Human Malignant Lymphocytes. Dennis A. Carson and D. Bruce Wasson.

4325 Heterogeneity of Expression and Induction of Mouse Mammary Tumor Virus Antigens in Mouse Mammary Tumors. Jean C. Hager and Gloria H. Heppner.

4330 Protection and Potentiation of Nitrogen Mustard Cytotoxicity by WR-2721. Frederick Valeriote and Sandra Tolen.

4332 Apparent Lack of Immunogenicity of Estrogen-induced Testicular Leydig Cell Tumors in BALB/c Mice. Robert A. Huseby and Robert H. Page.

4339 Schedule Optimization of Hydroxyurea and 1- $\beta$ -D-Arabinofuranosylcytosine in Sarcoma 180 in Vitro. S. E. Shackney, S. S. Ford, S. J. Occhipinti, P. S. Ritch, R. Riccardi, and B. W. Erickson, Jr.

\*4348 Differentiation of Platelet-aggregating Effects of Human Tumor Cell Lines Based on Inhibition Studies with Apyrase, Hirudin, and Phospholipase. Eva Bastida, Antonio Ordinas, Steven L. Giardina, and G. A. Jameson.

4353 Effects of Combinations of Drugs Having Different Modes of Action at the Ribonucleotide Reductase Site on Growth of L1210 Cells in Culture. Atsushi Sato, Gay L. Carter, Patricia E. Bacon, and Joseph G. Cory.

4358 Azomycin Riboside, a Sugar Homologue of Misonidazole with Favorable Radiosensitizing Properties. Simon M. Jarvis, J. Donald Chapman, Jane Ngan-Lee, Kathy A. Rutledge, Philip J. Barr, and Alan R. P. Paterson.

4364 Comparison of Some Carcinogenic, Mutagenic, and Biochemical Properties of S-Vinylthiocystine and Ethionine. Wilbur R. Leopold, James A. Miller, and Elizabeth C. Miller.

4375 Modulation of Peptide Binding to Specific Receptors on Rat Pituitary Cells by Tumor-promoting Phorbol Esters: Decreased Binding of Thyrotropin-releasing Hormone and Somatostatin as Well as Epidermal Growth Factor. Rosemarie Osborne and Armen H. Tashjian, Jr.

4382 Synergistic Antileukemic Effect of 6-Aminonicotinamide and 1,3-Bis(2-chloroethyl)-1-nitrosourea on L1210 Cells in Vitro and in Vivo. Nathan A. Berger, Donna M. Catino, and Teresa J. Vietti.

4387 Identification and Characterization of a High-Affinity Saturable Binding Protein for the Carcinogen Benzo(a)pyrene. Thomas H. Zytkevich.

\*4394 Epidermal Growth Factor Receptors and Effect of Epidermal Growth Factor on Growth of Human Breast Cancer Cells in Long-Term Tissue Culture. Yasuo Imai, Clement K. H. Leung, Henry G. Friesen, and Robert P. C. Shiu.

4399 Kinetic Characteristics of Citrate Influx and Efflux with Mitochondria from Morris Hepatomas 3924A and 16. Ronald S. Kaplan, Harold P. Morris, and Peter S. Coleman.

4408 Therapy of 7,12-Dimethylbenz(a)anthracene-induced Rat Mammary Carcinomas with Combinations of 5-Fluorouracil and 2 $\alpha$ -Methylhydrocortisone Propionate. Morris N. Teller, C. Chester Stock, Matthew Bowie, Ting-Chao Chou, and John M. Budinger.

\*4413 Time-Dose Relationships for 5-Fluorouracil Cytotoxicity against Human Epithelial Cancer Cells in Vitro. Paula M. Calabro-Jones, John E. Byfield, John F. Ward, and Thomas R. Sharp.

\*4421 Terminal Differentiation of the Human Promyelocytic Leukemia Cell Line, HL-60, in the Absence of Cell Proliferation. Darío Ferrero, Corrado Tarella, Eugenio Gallo, Franco W. Ruscelli, and Theodore R. Breitman.

4427 DNA Degradation in Chinese Hamster Ovary Cells after Exposure to Hyperthermia. Raymond L. Warters and Kurt J. Henle.

4433 Characterization of Protein Carboxyl-O-methyltransferase in the Spontaneous in Vivo Murine C-1300 Neuroblastoma. Robert F. O'Dea, Gerard Pons, Jane A. Hansen, and Bernard L. Mirkin.

4437 Concomitant Inhibition of Tumor-associated Inflammatory Responses and Rapid Enhancement of Cyclophosphamide-induced Tumor Regression by Hydrocortisone. Robert Evans and Denise M. Eidlén.

\*4443 Estrogen Binding Sites in the Nucleus of Normal and Malignant Human Tissue: Optimization of an Exchange Assay for the Measurement of Specific Binding. J. S. Syne, B. M. Markaverich, J. H. Clark, and W. B. Panko.

\*4449 Estrogen Binding Sites in the Nucleus of Normal and Malignant Human Tissue: Characteristics of the Multiple Nuclear Binding Sites. J. S. Syne, B. M. Markaverich, J. H. Clark, and W. B. Panko.

4455 Inhibition by Dietary Selenium of Colon Cancer Induced in the Rat by Bis(2-oxopropyl)nitrosamine. Diane F. Birt, Terence A. Lawson, Alan D. Julius, Christopher E. Runice, and Shahrokh Salmasi.

4460 Modifications of DNA by Different Haloethylnitrosoureas. William P. Tong, Kurt W. Kohn, and David B. Ludlum.

4465 Stimulation of Fibronectin Production by Retinoic Acid in Mouse Skin Tumors. Sally D. Bolmer and George Wolf.

4473 Efficient Metabolism of Benzo(a)pyrene at Nanomolar Concentrations by Intact Murine Hepatoma Cells. Arthur G. Miller and James P. Whitlock, Jr.

4479 Nitroreductase-mediated Metabolic Activation of 2-Amino-4-(5-nitro-2-furyl)thiazole and Binding to Nucleic Acids and Proteins. Santhanam Swaminathan, Gerald M. Lower, Jr., and George T. Bryan.

4485 Changes in Thermosensitivity of Mouse Mammary Carcinoma following Hyperthermia in Vivo. Juong G. Rhee, Chang W. Song, and Seymour H. Levitt.

4490 Effect of Disulfiram (Tetraethylthiuram Disulfide) and Diethyldithiocarbamate on the Bladder Toxicity and Antitumor Activity of Cyclophosphamide in Mice. Miles P. Hacker, William B. Ersler, Robert A. Newman, and Richard L. Gamelli.

\*4495 In Vitro Chemosensitivities of Human Tumor Stem Cells to the Phase II Drug 4'-(9-Acridinylamino)methanesulfon-m-anisidide and Prospective in Vivo Correlations. Frederick R. Ahmann, Frank L. Meyskens, Jr., Thomas E. Moon, Brian G. M. Durie, and Sydney E. Salmon.

4499 Abolition by Cycloheximide of Caffeine-enhanced Lethality of Alkylating Agents in Hamster Cells. Shishir K. Das, Ching C. Lau, and Arthur B. Pardee.

\*4505 Decreased Immunoglobulin Production by a Human Lymphoid Cell Line following Melphalan Treatment. Guy D. Griffin, Bruce A. Owen, Charles E. Atchley, G. David Novelli, and Alan Solomon.

4511 Effect of Carcinogen Dose on the Dynamics of Neoplastic Development in Rat Tracheal Epithelium. M. Terzaghi, P. Nettesheim, and L. Riester.

\*4519 Mutagenesis and DNA Binding of Benzo(a)pyrene in Cocultures of Rat Hepatocytes and Human Fibroblasts. Stephen Strom and George Michalopoulos.

4525 Kinetics of N-(Phosphonacetyl)-L-aspartate and Pyrazofurin Depletion of Pyrimidine Ribonucleotide and Deoxyribonucleotide Pools and Their Relationship to Nucleic Acid Synthesis in Intact and Permeabilized Cells. James D. Moyer, Patricia A. Smith, Emily J. Levy, and Robert E. Handschumacher.

4532 Monoclonal Antibody to Chicken Fetal Antigens on Normal Erythroid Cells and Hematopoietic-Lymphoid Tumor Cell Lines. Bob G. Sanders, James P. Allison, and Kimberly Kline.

\*4540 Effect of Sodium Butyrate on Alkaline Phosphatase in HRT-18, a Human Rectal Cancer Cell Line. Akira Morita, Dean Tsao, and Young S. Kim.

\*4546 A Nuclear Matrix Antigen in HeLa and Other Human Malignant Cells. Zbigniew Wójcikowski, David M. Duhl, Robert C. Briggs, Lubomir S. Hnilica, Janet L. Stein, and Gary S. Stein.

4553 Effect of Thyroid Status on Development of Spontaneous Mammary Tumors in Primiparous C3H Mice. Barbara K. Vonderhaar and Antonette E. Greco.

4562 Peroxidase Content in Cell Subpopulations of 7,12-Dimethylbenz(a)anthracene-induced Mammary Tumors in Rats. Joseph Brightwell and Michael T. Tseng.

- \*4567 Synthesis of  $\alpha_1$ -Antichymotrypsin and  $\alpha_1$ -Acid Glycoprotein by Human Breast Epithelial Cells. Sandra J. Gendler, Gerald B. Dermer, Lawrence M. Silverman, and Zoltan A. Tokes.
- 4574 Ascites Tumor Invasion of Mouse Peritoneum Studied by High-Voltage Electron Microscope Stereocopy. Donald F. Parsons, Michael Marko, Susan J. Braun, and Kevin J. Wansor.
- \*4584 Induction and Repair of DNA and Chromosome Damage by Neocarzinostatin in Quiescent Normal Human Fibroblasts. Walter N. Hittelman and Margaret Pollard.
- 4591 Structural Anomalies of Highly Malignant Respiratory Tract Epithelial Cells. R. L. Manger and C. A. Heckman.
- \*4600 Effects of 12-O-Tetradecanoylphorbol-13-acetate on the Differentiation of Simian Virus 40-infected Human Keratinocytes. R. A. Mufson, M. L. Steinberg, and V. Defendi.
- \*4606 Method for Measurement of Self-Renewal Capacity of Clonogenic Cells from Biopsies of Metastatic Human Malignant Melanoma. Stephen P. Thomson and Frank L. Meyskens, Jr.
- 4614 Inability of Methapyriene to Induce Sister Chromatid Exchanges in Vitro and in Vivo. P. Thomas Iype, Rafia Ray-Chaudhuri, William Lipinsky, and Susan P. Kelley.
- \*4619 Human Breast Cell-mediated Mutagenesis of Mammalian Cells by Polycyclic Aromatic Hydrocarbons. Michael N. Gould, Lorraine E. Cathers, and Cynthia J. Moore.
- 4625 Chicken Fetal and Adult Antigen Expression on Erythroleukemia Cells before and after Induced Differentiation. Carrie H. Nelson, James P. Allison, Kimberly Kline, and Bob G. Sanders.
- 4631 Clonal Drift of Cell Surface, Melanogenic, and Experimental Metastatic Properties of in Vivo-selected, Brain Meninges-colonizing Murine B16 Melanoma. Karen M. Miner, Takanori Kawaguchi, Grant W. Uba, and Garth L. Nicolson.
- 4639 Ultrastructure and Fatty Acid Composition of Fatty Acid-modified Morris 7777 Hepatoma Cells. Mohammed K. Abbas, Tai-June Yoo, and Joseph Viles.
- 4650 Presence of a Novel Recombinant Murine Leukemia Virus-like Glycoprotein on the Surface of Virus-negative C57BL Lymphoma Cells. Peter J. Fischinger, H. Jürgen Thiel, Miriam Lieberman, Henry S. Kaplan, Nancy M. Dunlop, and W. Gerard Robey.
- 4658 Benzo(a)pyrene Hydroxylase Activity in Enriched Populations of Clara Cells and Alveolar Type II Cells from Control and  $\beta$ -Naphthoflavone-pretreated Rats. Kenneth G. Jones, John F. Holland, and James R. Fouts.
- 4664 Principal Polypeptide Target of Carcinogen at the Beginning of Liver Carcinogenesis by Three Carcinogens. Gary R. Blackburn, Susan J. Schnabel, J. Mark Danley, Ruth A. Hogue-Angeletti, and Sam Sorof.
- 4673 Liver Regeneration Studies with Rat Hepatocytes in Primary Culture. G. Michalopoulos, H. D. Cianciulli, A. R. Novotny, A. D. Kligerman, S. C. Strom, and R. L. Jirle.
- \*4683 Assessment of in Vitro Drug Sensitivity of Human Tumor Cells Using [ $^3$ H]Thymidine Incorporation in a Modified Human Tumor Stem Cell Assay. Howard M. Friedman and Daniel L. Glaubiger.
- 4690 Effect of Cell Density on Growth Rate and Amino Acid Transport in Simian Virus 40-transformed 3T3 Cells. Giuseppe Piedmonte, Angelo F. Borghetti, and Guido G. Guidotti.
- \*4694 Regulation of I- and I-Antigen Expression in the K562 Cell Line. U. Testa, A. Henri, A. Bettaleb, M. Titoux, W. Vainchenker, H. Thonath, M. C. Docklear, and H. Rochant.
- \*4701 Presence of Estrogen Binding Sites and Growth-stimulating Effect of Estradiol in the Human Myelogenous Cell Line HL60. Laurence Daniel, Genevieve Cordier, Jean-Pierre Revillard, and Simone Saez.
- 4706 Inhibition of C3H/He Mouse Mammary Tumor Growth by Combined Treatment with Cyclophosphamide and Polyadenylic-Polyuridylic Acid. Jung Koo Yoon, Fanny Lacour, and Gilbert Hue.
- 4712 Metabolism of N-Hydroxy-2-acetylaminofluorene and N-Hydroxy-2-aminofluorene by Guinea Pig Liver Microsomes. C. Razzouk, M. Batardy-Gregoire, and M. Roberfroid.
- 4719 In Vivo Resistance towards Anthracyclines, Etoposide, and cis-Diaminedichloroplatinum (II). Siegfried Seiber, Rainhardt Oseka, Carl Gottfried Schmidt, Wolf Achterath, and Stanley T. Crooke.
- 4726 Selective Enhancement of the Cytotoxicity of the Bleomycin Derivative, Papiomycin, by Local Anesthetics Alone and Combined with Hyperthermia. Satoshi Mizuno and Akiko Ishida.
- 4730 Increased Accumulation of Vincristine and Adriamycin in Drug-resistant P388 Tumor Cells following Incubation with Calcium Antagonists and Calmodulin Inhibitors. Takashi Tsuruo, Harumi Iida, Shigeru Tsukagoshi, and Yoshio Sakurai.
- 4734 Liposomes as in Vivo Carriers of Adriamycin: Reduced Cardiac Uptake and Preserved Antitumor Activity in Mice. A. Gabizon, A. Dagan, D. Goren, Y. Barenholz, and Z. Fuks.
- 4740 Dose Response and Growth Rates of Subcutaneous Tumors Induced with 3-Methylcholanthrene in Mice and Timing of Tumor Origin. Hiroshi Tanooka, Kazuhiko Tanaka, and Hiroko Arimoto.
- 4744 Relationship between Aberrant DNA Replication and Loss of Cell Viability in Chinese Hamster Ovary CHO-K1 Cells. David M. Woodcock, Jillian K. Adams, and Ian A. Cooper.
- 4753 In Vivo Studies of Increased Incidence of Sister Chromatid Exchanges in Target Cells of Replication-competent Friend Murine Leukemia Virus. Fabrizio Palitti, Giovanni P. Matarese, Giampiero Diana, Vincenzo Sorrentino, and Giovanni B. Rossi.
- \*4758 Use of the Agar Diffusion Chamber for the Exposure of Human Tumor Cells to Drugs. P. J. Selby and G. G. Steel.
- \*4763 Distribution of Myoepithelial Cells and Basement Membrane Proteins in the Normal Breast and in Benign and Malignant Breast Diseases. Barry A. Gusterson, Michael J. Warburton, Diana Mitchell, Morag Ellison, A. Munro Neville, and Philip S. Rudland.
- \*4771 Sensitivity of Cultured Human Osteosarcoma and Chondrosarcoma Cells to Retinoic Acid. Rafael Thein and Reuben Lotan.
- 4776 Communication: Synergistic Interaction of Two Classes of Transforming Growth Factors from Murine Sarcoma Cells. Mario A. Anzano, Anita B. Roberts, Chester A. Meyers, Akira Komoriya, Lois C. Lamb, Joseph M. Smith, and Michael B. Sporn.
- 4779 Communication: Metabolism and Tumorigenicity of 7 $\alpha$ , 8 $\alpha$ , 9 $\alpha$ , and 10-Fluorobenzo(a)pyrenes. Donald R. Butler, Figen Unlu, Dhiren R. Thakker, Thomas J. Slaga, Melvin S. Newman, Wayne Levin, Allan H. Conney, and Donald M. Jerina.
- 4797 Effects of Aminoglutethimide on  $\Delta^5$ -Androstenediol Metabolism in Postmenopausal Women with Breast Cancer. Charles E. Bird, Valerie Masters, Ernest E. Sterns, and Albert F. Clark.
- 4801 Glucocorticoid Receptors in Childhood Acute Lymphocytic Leukemia. Mark E. Costlow, Ching-Hon Pui, and Gary V. Dahl.
- 4807 Efflux of 3-Methylhistidine from the Leg in Cancer Patients Who Experience Weight Loss. K. Lundholm, K. Benneberg, E. Eden, G. Svaninger, P. W. Emery, and M. J. Rennie.
- 4812 Cytoplasmic and Nuclear Estrogen and Progesterone Receptors in Male Breast Cancer. Rosemary J. Pegoraro, Dharamraj Nirmul, and Septimus M. Joubert.
- 4815 Abnormalities in Glucose and Protein Metabolism in Noncancerous Lung Cancer Patients. David Heber, Rowan T. Chlebowski, Debra E. Ishibashi, Joyce N. Herrold, and Jerome B. Block.
- 4820 Gastrointestinal Cancer-associated Antigen in Immunoperoxidase Assay. Barbara F. Atkinson, Carolyn S. Ernst, Meenhard Herlyn, Zenon Stepelwsky, Henry F. Sears, and Hilary Koprowski.
- 4824 Phase I Study of High-Dose Methotrexate with Thymidine and Low-Dose Leucovorin. Salvador Bruno, Gerald Grindley, Sigmund Zakrzewski, Roger Priede, James Kinahan, Houshang Moayeri, Elihu Lesdema, Arnold Hittelman, and Patrick Creaven.
- 4827 Clinical and Pharmacokinetic Effects of Combined Warfarin and 5-Fluorouracil in Advanced Colon Cancer. Rowan T. Chlebowski, Cary H. Gota, Kenneth K. Chan, John M. Weiner, Jerome B. Block, and Joseph R. Bateman.
- 4831 Phase I Clinical Trial and Pharmacokinetics of 4'-Carboxyphthalato(1,2-diaminocyclohexane)platinum(II). D. P. Kelsen, H. Scher, N. Alcock, B. Leyland-Jones, A. Donner, L. Williams, G. Greene, J. H. Burchenal, C. Tan, F. S. Philips, and C. W. Young.
- 4836 Purification and Immunological Characterization of Human Pancreatic Ribonuclease. Minoru Kurihara, Michio Ogawa, Toshiyuki Ohta, Eiji Kurokawa, Takeshi Kitahara, Goro Kosaki, Takehiko Watanabe, and Hiroshi Wada.
- 4842 Decrease in Creatine Kinase in Human Prostatic Carcinoma Compared to Benign Prostatic Hyperplasia. Thomas G. Pretlow II, Garnett B. Whitehurst, Theresa P. Pretlow, R. Stillwell Hunt, John M. Jacobs, David R. McKenzie, Huey G. McDaniel, Leo M. Hall, and Edwin L. Bradley, Jr.
- 4849 Human Prostate Androgen Receptor Quantitation: Effects of Temperature on Assay Parameters. Sydney A. Shain, Lester S. Gorelic, Robert W. Boesels, Howard M. Radwin, and Donald L. Lamm.
- 4855 Acute Changes of  $\alpha$ -Fetoprotein and Human Chorionic Gonadotropin during Induction Chemotherapy of Germ Cell Tumors. Nicholas J. Vogelzang, Paul H. Lange, Anne Goldman, Robert H. Vessella, Elwin E. Fraley, and B. J. Kennedy.
- 4862 Augmentation of the Human Immune Response by Cyclophosphamide. David Berd, Michael J. Mastrangelo, Paul F. Engstrom, Anthony Paul, and Henry Maguire.
- 4867 Meeting Report: Fifth Annual Interdisciplinary Cancer Research Workshop. Peter Politzer, Cyril Parkanyi, and Ieva Ruks Politzer.
- 4869 Announcements
- 4871 Books Received
- 4872 Erratum
- 4873 Author Index

## December, Number 12

### BASIC SCIENCES

- 4918 Correlation between Activation of Quiescent 3T3 Cells by Retinoic Acid and Increases in Uridine Phosphorylation and Cellular RNA Synthesis. Eliezer Rapaport, Edward W. Schroder, Alisa Kasan Kabenell, and Paul H. Block.

- 4921 Response of Aerobic and Hypoxic Cells in a Solid Tumor to Adriamycin and Cyclophosphamide and Interaction of the Drugs with Radiation. Ian Tannock.



- 4927 Host Interactions in the Effects of 5-Fluorouracil on Ehrlich Ascites Tumor Cells. Kevin M. Connolly, R. Douglas Armstrong, Robert B. Dasio, and Alan M. Kaplan.
- 4936 Glucose Metabolism and the Percentage of Glucose Derived from Alanine: Response to Exogenous Glucose Infusion in Tumor-bearing and Non-Tumor-bearing Rats. Jeffrey M. Arbeit, Michael E. Burt, Lawrence V. Rubinstein, Catherine M. Gorschboth, and Murray F. Brennan.
- 4943 Influence of Underfeeding during the "Critical Period" or Thereafter on Carcinogen-induced Mammary Tumors in Rats. P. W. Sylvester, C. F. Aylsworth, D. A. Van Vugt, and J. Meites.
- \*4948 Comparative Antiproliferative Activity in Vitro of Natural Interferons  $\alpha$  and  $\beta$  for Diploid and Transformed Human Cells. E. C. Borden, T. F. Hogan, and J. G. Voelkel.
- 4954 Effect of Short-Term Feeding of Sodium Selenite on 7,12-Dimethylbenz(a)anthracene-induced Mammary Carcinogenesis in the Rat. Henry J. Thompson, L. David Meeker, Peter J. Becchi, and Stephen Kokoska.
- \*4959 Interaction of Antigen with Dimethyldicladecylammonium Bromide, a Chemically Defined Biological Response Modifier. F. Samuel Baechtel and Morton D. Prager.
- \*4964 Putative Transformation-dependent Proteins in the Blood Plasma of Tumor-bearing Rats and Cancer Patients. Dorothy E. Schumm and Thomas E. Webb.
- 4970 Mechanism of Regression of Mammary Adenocarcinomas in Rats following Plasma Adsorption over Protein A-containing *Staphylococcus aureus*. Prasanta K. Ray, Syamal Raychaudhuri, and Paul Allen.
- 4975 Glycosaminoglycan Synthesis by a Cell Line (C1-S1) Established from a Preneoplastic Mouse Mammary Outgrowth. John C. Angello, Howard L. Hosick, and Lawrence W. Anderson.
- 4979 An Unusual Transfer RNA (Guanine-2)-methyltransferase from Transplantable Rat Mammary Tumors. Karen J. Brunke and Phoebe S. Leboy.
- \*4985 Reactivity of Serum-armed Xenogeneic Macrophages to Breast Cancer Antigens. Lester F. Harris, Lynda L. Miller, and David F. Hickok.
- 4991 Effects of 2'-Deoxyadenosine, 9- $\beta$ -D-Arabinofuranosyladenine, and Related Compounds on S-Adenosyl-L-homocysteine Hydrolase Activity in Synchronous and Asynchronous Cultured Cells. Carol E. Cass, Milada Selner, Peter J. Ferguson, and J. Robert Phillips.
- 4999 Kinetic Heterogeneity in Density-separated Murine Fibrosarcoma Subpopulations. William A. Brock, Douglas E. Swartzendruber, and David J. Grdina.
- 5004 Methyl-accepting RNA in 13762 Mammary Adenocarcinoma Correlated with Low Adenine Methyltransferase Levels. Carlos E. Salas, Barbara D. Uschmann, and Phoebe S. Leboy.
- 5010 Hormonally Responsive versus Unresponsive Progression of Prostatic Cancer to Antiandrogen Therapy as Studied with the Dunning R-3327-AT and -G Rat Adenocarcinomas. John T. Isaacs.
- \*5015 Effect of Methotrexate on Incorporation and Excision of 5-Fluorouracil Residues in Human Breast Carcinoma DNA. David J. Herrick, Pierre P. Major, and Donald W. Kufe.
- \*5018 Inhibition of the Growth of Human Colon Cancer Xenografts by Polar Solvents. Daniel L. Dexter, Ellen N. Spremulli, George M. Matook, Israel Diamond, and Paul Calabresi.
- 5023 Effect of Phorbol Esters on Alloimmune Cytolysis. William E. Munger and Richard R. Lindquist.
- \*5030 Positive Correlation between High Aryl Hydrocarbon Hydroxylase Activity and Primary Lung Cancer as Analyzed in Cryopreserved Lymphocytes. R. E. Kouri, C. E. McKinney, D. J. Slomiany, D. R. Snodgrass, N. P. Wray, and T. L. McLemore.
- 5038 Inhibition of Tumor Growth in Association with Modifications of *in vivo* Immune Response by Indomethacin and Polyinosinic:Polycytidylic Acid. Michael J. Droller and Diana Gomolka.
- 5046 Delayed Sensitization to Heat by Inhibitors of Polyamine-biosynthetic Enzymes. David J. M. Fuller and Eugene W. Gerner.
- 5050 Reduction of N-Methyl-N-nitrosourea-induced Colon Tumors in the Rat by Cholesterol. Bertram I. Cohen, Robert F. Raicht, and Eugene Fazzini.
- 5053 Effects of Sex Difference and Dietary Protein Level on the Binding of Aflatoxin B<sub>1</sub> to Rat Liver Chromatin Proteins in Vivo. Lester O. Prince and T. Colin Campbell.
- \*5060 Response to Estrogen by the Human Mammary Carcinoma Cell Line CAMA-1. Benjamin S. Leung, Shehla Qureshi, and Jonas S. Leung.
- \*5067 Effects of Phorbol Ester Tumor Promoters and Nerve Growth Factor on Neurite Outgrowth in Cultured Human Neuroblastoma Cells. Walter Spinelli, Kenneth H. Sonnenfeld, and Douglas N. Ishii.
- 5074 Establishment of Two Parental Cell Lines and Three Clonal Cell Strains from Rat Colonic Carcinoma. Linda S. Borman, Donald C. Swartzendruber, and L. Gayle Littlefield.
- \*5084 Inhibition of Lung Metastases in Mice Bearing a Malignant Fibrosarcoma by Treatment with Liposomes Containing Human C-reactive Protein. Sharad D. Deodhar, Karen James, Theresa Chiang, Mark Edinger, and Barbara P. Barna.
- 5089 Metabolism of the Pancreatic Carcinogen N-Nitroso-2,6-dimethylmorpholine by Hamster Liver and Component Cells of Pancreas. Dante G. Scarpelli, Demetri M. Kokkinakis, M. Sambasiva Rao, Vadrevu Subbarao, Noreen Luetteke, and Paul F. Hollenberg.
- \*5096 Disrupted Communication between Late-Stage Pre-malignant Human Colon Epithelial Cells by 12-O-Tetradecanoylphorbol-13-acetate. Eileen A. Friedman and Mark Steinberg.
- \*5106 Induction of Cytoskeleton-associated Proteins during Differentiation of Human Myeloid Leukemic Cell Lines. Samuel D. Bernal and Lan Bo Chen.
- 5117 Anchorage-independent Growth-conferring Factor Production by Rat Mammary Tumor Cells. James A. Zwiebel, Margot R. Davis, Elise Kohn, David S. Salomon, and William R. Kidwell.
- 5126 Thiouracil Distribution in Mice Carrying Transplantable Melanoma. Ralph G. Fairchild, Samuel Packer, Dennis Greenberg, Pranita Som, A. Bertrand Brill, Irwin Fand, and William P. McNally.
- 5133  $\gamma$ -Glutamyl Transpeptidase and  $\alpha$ -Fetoprotein Expression during  $\alpha$ -Naphthylthiocyanate-induced Hepatotoxicity in Rats. William L. Richards, Yutaka Tsukada, and Van R. Potter.
- \*5139 Neoplastic Transformation and Defective Control of Cell Proliferation and Differentiation. John J. Wille, Jr., Peter B. Maercklein, and Robert E. Scott.
- \*5147 Drug and Hormone Sensitivity of Estrogen Receptor-positive and -negative Human Breast Cancer Cells in Vitro. Gerald J. Goldenberg and Evelyn K. Froese.
- \*5152 Kinetics of Appearance of Differentiation-associated Characteristics in ML-1, a Line of Human Myeloblastic Leukemia Cells, after Treatment with 12-O-Tetradecanoylphorbol-13-acetate, Dimethyl Sulfoxide, or 1- $\beta$ -D-Arabinofuranosylcytosine. K. Takeda, J. Minowada, and A. Bloch.
- \*5159 Purine Modulation of Methotrexate Cytotoxicity in Mammalian Cell Lines. Ian W. Taylor, Peter Slowiaczek, Pauline R. Francis, and Martin H. N. Tattersall.
- 5165 Biliary Control of  $\beta$ -Glucuronidase Activity in the Luminal Contents of the Rat Ileum, Cecum, and Rectum. Anthony M. Robertson, Sum P. Lee, Rosemary Lindop, Roger A. Stanley, Lindy Thomsen, and Clifford Tasman-Jones.
- 5167 Carcinogenicity of N-Nitrosodietanolamine in Rats at Five Different Dose Levels. R. Preussmann, M. Habs, H. Habs, and D. Schmahl.
- \*5172 Combined Actions of 5-Fluorouracil and 1-(2-Chloroethyl)-3-(4-methylcyclohexyl)-1-nitrosourea on Human Colonic Carcinoma Cells in Vitro. Janette E. Sutton, Ian A. G. Roos, and Brian L. Hilcoat.
- 5176 Diminution of Cyclophosphamide-induced Suppression of Antitumor Immunity by an Immunomodulator. PS-K and Combined Therapeutic Effects of PS-K and Cyclophosphamide on Transplanted Tumor in Rats. Yutaka Mizushima, Naoya Yuhki, Masuo Hosokawa, and Hiroshi Kobayashi.
- 5181 Effect of Sex Hormones on Carcinogenesis in the Stomachs of Rats. Hiroshi Furukawa, Takeshi Iwanaga, Hiroki Koyama, and Haruo Taniguchi.
- 5183 Altered Organization of Cell-Substrate Contacts and Membrane-associated Cytoskeleton in Tumor Cell Variants Exhibiting Different Metastatic Capabilities. Avraham Raz and Benjamin Geiger.
- \*5191 Variable Effects of Retinoids on Two Pigmenting Human Melanoma Cell Lines. Eileen Hoal, E. Lynette Wilson, and Eugene B. Dowdle.
- 5196 Two Forms of Tumors in Nude Mice Generated by a Neoplastic Rat Mammary Stem Cell Line. Philip S. Rudland, Barry A. Gusterson, Christine M. Hughes, E. Jane Ormerod, and Michael J. Warburton.
- 5209 Monoclonal Anti-MM46 Antibody-Ricin A Chain Conjugate: *In Vitro* and *In Vivo* Antitumor Activity. Masao Sato, Naoki Umemoto, Masahiko Sato, Yasuhiko Masuho, Takeshi Hara, and Toshiyuki Takahashi.
- 5216 Demonstration of *In Vivo* DNA Repair Synthesis in Mouse Skin Exposed to Various Chemical Carcinogens. Takatoshi Ishikawa, Ken-ichi Kouama, Fumio Ide, and Shozo Takayama.
- \*5222 Continuous Expression of Cancer-related Fucosyl Glycopeptides on the Surface of Human Promyelocytic Leukemia Cells (HL-60) following Terminal Differentiation *In Vitro*. Wim P. van Beek, Abraham Tulp, Mieke Egbers-Bogaards, Klaas J. Rozenendaal, and Lou A. Smets.
- 5231 Enhanced Radiation Lethality in Partially Synchronized Solid Mouse Tumors. Takeshi Todoroki, Sachiko Koike, Hiroshi Tsunemoto, and Ikuo Watanabe.
- \*5236 Meeting Report: Development and Possible Use of Immunological Techniques to Detect Individual Exposure to Carcinogens: International Agency for Research on Cancer/International Programme on Chemical Safety Working Group Report. R. Montesano, M. F. Rajewsky, A. E. Pegg, and E. Miller.

## CLINICAL INVESTIGATIONS

- 5240 N-Nitroso Compounds and Childhood Brain Tumors: A Case-Control Study. Susan Preston-Martin, Mimi C. Yu, Barbara Benton, and Brian E. Henderson.
- 5246 Hepatitis B Virus and Cigarette Smoking: Risk Factors for Hepatocellular Carcinoma in Hong Kong. K. C. Lam, Mimi C. Yu, Joseph W. C. Leung, and Brian E. Henderson.
- 5249 Recent Studies of Glycolipid and Glycoprotein Profiles and Characterization of the Major Glycolipid Antigen in Gastric Cancer of a Patient of Blood Group Genotype  $pp(TT^+)$  First Studied in 1951. Reiji Kannagi, Philip Levine, Kiyohiro Watanabe, and Sen-itiro Hakomori.
- 5255 Pharmacokinetics of (+)-1,2-Di(3,5-dioxopiperazin-1-yl)propane Intravenous Infusions in Adult Cancer Patients. Robert H. Earhart, Kendra D. Tutsch, Jim M. Koeller, Rey Rodriguez, H. Ian Robins, Charles L. Vogel, Hugh L. Davis, and Douglass C. Torrey.
- 5262 Clonogenic Assay for Wilms' Tumor: Improved Technique for Obtaining Single-Cell Suspensions and Evidence for Tumor Cell Specificity. Lois W. Dow, Manoo Bhakta, and Judith Wilimas.
- 5265 Urine Levels of N-[9-( $\beta$ -D-Ribofuranosyl)purin-6-ylcarbamoyl]-L-threonine, N<sup>3</sup>-( $\Delta^3$ -isopentenyl)adenosine, and 2'-O-Methylguanosine as Determined by Radioimmunoassay for Normal Subjects and Cancer Patients. Barbara S. Vold, Duane E. Keith, Jr., and Milan Slavik.
- 5270 Lipid-associated Sialic Acid Test for the Detection of Human Cancer. Nonda Kalopodis, Yashar Hirshaut, Nancy L. Geller, and C. Chester Stock.
- 5276 Announcements
- 5278 Books Received
- 5279 Acknowledgment to Reviewers
- 5287 Author Index
- 5288 Statement of Ownership, Management and Circulation

## Index to Volume 42 1982

Author index .....	5289
Subject index .....	5323
Contents of volume .....	i

### Cover Illustrations for 1982

- January:** William E. Castle and the Bussey Institution at Harvard University and a diagram of the mammalian genetics family tree that grew in the United States.
- February:** Leo Sachs and Isaac Berenblum, the Jacob Ziskind Building at the Weizmann Institute of Science, and Science Square with the Ullman Institute of Life Sciences, and the Wolfson Institute of Experimental Biology, Rehovot, Israel.
- March:** Federico Arcamone and Aurelio Di Marco, along with photographs of the mold of *Streptomyces peucitius* and the Farmitalia Research Laboratories in Milan, Italy, and a depiction of the chemical structures of daunomycin and its 14-hydroxy derivative.
- April:** 75th Anniversary of the American Association for Cancer Research. James Ewing, Frank B. Mallory, and Harvey B. Gaylor, the first officers of the Association, and a list of references to publications by eleven charter members of the Association.
- May:** 13th International Cancer Congress of the International Union Against Cancer (UICC). William B. Hutchinson, President, and Edwin A. Mirand, Secretary-General of the UICC, and a scene of the Seattle Convention Center and Space Needle, Seattle, Washington.
- June:** Barnett Rosenberg and assistant, Loretta Van Camp, and Joseph M. Hill, along with the chemical formula of *cis*-dichlorodiammineplatinum (*cis*-platin).
- July:** James R. K. Paterson and Edith Paterson and a drawing of the Christie Hospital and Holt Radium Institute, Manchester, England.
- August:** Gordon H. Theilen, the Veterinary Medicine Teaching Hospital at Davis, California, and the wooley monkey that yielded the virus from its occipital fibrosarcoma, and a photomicrograph of virus particles of the tumor.
- September:** L. C. Stevens, G. Barry Pierce, and Ralph L. Brinster and a section of a teratocarcinoma of strain 129 mice with a diagram indicating some of its malignant and benign elements.
- October:** Harry Shay and Charles Huggins and charts showing induction of mammary tumors in rats.
- November:** Recipients of the 1982 Annual Awards of the American Association for Cancer Research: George Weber, John A. Montgomery, Gianni Bonadonna, and Stuart A. Aaronson.
- December:** Recipients of the 1982 General Motors Cancer Research Foundation Prizes: Howard E. Skipper, Dennis P. Burkitt, and Stanley Cohen.







